AMATEUR ELECTRONIC SUPPLY® LLC

5710 W. Good Hope Road Milwaukee, WI 53223 • 414-358-0333 • Fax 414-358-3337 • Service 414-358-4087

BRANCH STORES			STORE HOURS
28940 Euclid Ave Cleveland, OH 44092 440-585-7388 1-800-321-3594 Fax 440-585-1024 cleveland@aesham.com	621 Commonwealth Ave Orlando, FL 32803 407-894-3238 1-800-327-1917 Fax 407-894-7553 orlando@aesham.com	1072 N Rancho Dr Las Vegas, NV 89106 702-647-3114 1-800-634-6227 Fax 702-647-3412 lasvegas@aesham.com	Monday-Friday 9am to 5:30pm Saturday 9am to 3pm Over 43 Years in Amateur Radio

Internet **www.aesham.com** • E-mail **info@aesham.com** • Toll Free **1-800-558-0411**

ORDER TOLL FREE 1-800-558-0411

6:00 A.M. Pacific to 8:30 P.M. Eastern
Monday – Friday • Saturday to 6:00 P.M.

Tall, telescoping antenna with BNC connector.

Use the TFT color display:

- *To show simple or advanced operation settings*
- *To scan for wireless cameras, like those found in race cars*
- *To catch your favorite TV shows*
- *In conjunction with a digital wireless camera to monitor babies, traffic, etc.*

When the TFT color display is not needed, or if you just want to conserve power, use the mono LCD to display all necessary information.

4-way action joystick quickly moves you through settings.

simulated picture

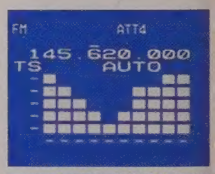
Lithium Ion Power
A long lasting Li-Ion battery offers easy charging, lightweight performance, and up to 27 hours of continual use on the mono LCD.

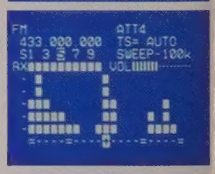
simulated picture

IC-R3* NEW

FOR A LOOK BEHIND THE SCENES

ICOM wide band receivers always let you HEAR more of what's out there. With the new IC-R3, now you can SEE more, too! This pocket sized marvel receives from 0.5 - 2450 MHz†, and sports a 2-inch TFT color display. Scan for wireless camera broadcasts. It's great for watching the action *behind* the scenes at sporting events. Or, just watch your favorite TV programs. A video/audio output terminal lets you display to a large monitor or recording device. All this, and advanced ICOM receiver features like 450 memory channels with alphanumeric names, CTCSS, attenuator, & more.





Signal strength (above) and band scope (below) functions assist in finding the action you want to hear...or see!

IC-R2
Excellent audio, tiny package

500 kHz – 1.300 GHz†

AM, FM, WFM • 100 mW audio output • easy band switching • weather resistant • CTCSS tone squelch • 400 memory channels • backlit LCD • priority watch • includes Ni-Cd batteries and charger, or use alkalines • PC programming (optional)

2.3 (w) x 3.4 (h) x 1.1 (d) in, 6 oz
58 (w) x 86 (h) x 27 (d) mm, 170 g

IC-R10
Advanced listening excitement

500 kHz – 1.300 GHz†

All mode • large, alphanumeric display • 1000 memory channels • band scope • 7 different scan types, including VSC (pauses only on voices) • easy mode • comes with rechargeable Ni-Cds and charger, or use alkalines • PC programming (optional)

2.3 (w) x 5.1 (h) x 1.2 (d) in, 10.9 oz
58.5 (w) x 130 (h) x 31.3 (d) mm, 310 g

When you're looking for the best, keep your eye (and ear) on an ICOM receiver.

Call AES today.

ICOM®

www.icomamerica.com

*This device has not been approved by the FCC. This device may not be sold or leased, or be offered for sale or lease, until approval of the FCC has been obtained.
†Cellular blocked: unblocked version available to FCC authorized users only.
©2000 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004 • 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. Questions? Contact AES or contact ICOM America Tech Support on CompuServe's® HamNet forum at 75540,525 or send e-mail to 75540.525@compuserve.com. CompuServe is a registered trademark of CompuServe, Inc. RCVREHHAESS100

CONSUMER & AUDIO/VISUAL PRODUCTS

Freeplay SL-CBL Clear Lantern 31
Midland 74-210 Weather Monitor 31
Garmin eMap Deluxe 34
Garmin eTrex 34
Winegard TV Accessories 127
Bounty Hunter Metal Detectors 140
RCA Digital Camera 142
RCA Lyra™ Digital Multi-Media Player 142
Phillips Tivo Personal TV Receiver 142
TV Allowance TV Time Manager 142
TV Guardian TV Foul Language Filter 142
Direct TV System 142
Emerson 900MHz Wireless Video 142
Terk LeapFrog® System 143
Terk Powered Stereo Antenna 143

MOBILE, BASE & HANDHELD RADIOS

Icom R3 Wideband Receiver CII, 47
Sangean ATS-505 Multiband Receiver 46
Grundig Satellit 800 Digital Receiver 48
Alinco DR-135 2M Mobile/Base 55
Alinco DJ-V5TDC(H) 2M/440 MHz HT 55
Icom IC-718 HF All Band Transceiver 71, 58
Yaesu FT-1500 50W, 2M Transceiver 71
Ranger RCI-2950DX 12M Transceiver 71
Ranger RCI-2970DX 10M Transceiver 71
Icom IC-756PRO 58, CIV

look for NEW

ANTENNAS & ACCESSORIES

Alpha Delta Basic Technolgy Video/Book 90
Alpha Delta Delta-4C Antenna Switch 93
Cushcraft R-8 40-6M Vertical Antenna 98
Hustler New Antenna Series 115
Bencher Mercury Paddle 123
Lakeview Co. Hamstick Antennas 125
HyGain Rotators 132
Yaesu GA-2500 Tower Shock Absorber 133

RADIO ACCESSORIES

Heil HM-10/HM-10 Dual Microphones 54
Heil SM-1 Microphone Shock Mount 54
Times Microwave Systems - Coax 71
ARRL 1999 Periodical CD 86
Pouch 508 Case for Yaesu VR500 138
MFJ 434 Contest Keyer 138
Superior Universal Mount 139

TABLE OF CONTENTS

Aircraft	49
Amplifiers	76–78
Antennas & Accessories	91–131
Audio Visual	142–143
Bank Transfer Information	149
Bids/Purchase Orders	151
Clocks	85
Employees	146–147
Encoders/Decoders	50
Filters	84
GPS	34
Headsets	52–54
Interconnects	85
Keyers	82–83
Manufacturer Information	152
Maps	150
Marine	49
Meters & Test Equipment	79–82
Microphones	52–54
Miscellaneous Accessories	137–141
Multi Media	86–90
New Products	1
Optics	144–145
Order Blank	149
Packet	51
Payment Methods	151
Personal Communications	32–33
Policies	151
Power Supplies	74–75
Price Guide	4–29
Product Locator	3
Radios & Repeaters	53,55–73
Refunds/Returns	151
Repair/Service Information	147
Rotators	132–133
Scanners	35–36
Security	30–31
Servicios Internacionales	146
Shipping	148
Shortwave	37–48
Towers	134–136
Trade-Ins	151
Weather	30–31

USED & demo Returned GEAR

Curent list available at

www.aesham.com

Or call toll free

Milwaukee	1-800-558-0411
Cleveland	1-800-321-3594
Orlando	1-800-327-1917
Las Vegas	1-800-634-6227

BY MANUFACTURER

AEA/TIMEWAVE 4, 51
AES INFO/ORDER BLANK 4, 146-151
ADI/PREMIER/PRYME .. 4, 52, 56-57, 70-71, 73, 121
AIM ELECTRONICS 4, 5, 74, 127
ALINCO 5, 53, 55, 70-74
ALPHA DELTA 5, 6, 90-93, 122
AMECO 6, 83-84, 87-88, 130
AMERITRON 6, 76, 126, 129
AMIDON 6
ANTENNA SPECIALISTS 6, 123
ANTENNA SUPERMARKET 6, 125
ANTENNAS AMERICA 6, 121
ANTENNA WORLD 6
AOR 4, 47
ARRL (QST) 4, 86-89
ARROW ANTENNA 6, 123
ARTSCI 6, 141
ASTATIC 6, 52
ASTRON 6, 74
AZDEN 6
B&K 6
B&W 7, 94
BMI 6, 85, 140
BELDEN 7, 127, 133
BELMERIT 7, 80
BENCHER 7, 83, 123
BIRD 7, 80
BOUNTY HUNTER 7, 140
BUCKMASTER 7, 87
BUSHNELL 7, 145
BUTTERNUT 7, 8, 123
CES (Comm Electronics Spec) 8, 85
CQ MAGAZINE 8, 87-89
CABLE X-PERTS 8, 128
CASTLE RIDGE 8, 127
CELESTRON 8, 89, 144
CENTAUR ELECTRONIC 8, 128
CHANNEL MASTER 8, 133
CHEROKEE 8, 70, 73
COAX SEAL 8, 128
COBRA 8, 32
COMET 8, 9, 95-97, 124, 130
COMMUNICATIONS SPECIALISTS . 9, 50
CONNECT SYSTEMS INC (CSI) 9, 10,50, 85
COUGAR 10
COURIER 10
COYNE 10
CROSS DEVICES (CRS) 10, 128
CUSHCRAFT 10, 98-108
CUTTING EDGE ENT 10, 138
DAIWA 80, 129
DAVIS 10, 30
DCI 10, 84
DC SALES 10, 129
DELORME 10, 34, 88
DIAMOND ANTENNA 10, 11, 74, 80, 109-112, 125, 130
DIGIMAX 11
DRAKE 11, 46
EASY-UP 11, 134
EDCO 11
EMERSON 11, 141-142
FREEPLAY (BAYGEN) 11, 31
GAMBER JOHNSON 11, 140
GAP ANTENNAS 11, 12, 113
GARMIN 12, 34, 88
GLEN MARTIN ENGINEERING .. 12, 134
GRACE, LL (KC TRACKER) 12, 132
GROTHE ELECTRONICS 12, 140
GROVE 12
GRUNDIG 12, 48
HAL 12, 51
HARGER 12, 130
HEIL 12, 54
HUSTLER ANTENNAS 13, 114-117
HY-GAIN 13, 132
ICOM .. CI-II, 13-16, 33, 35, 45, 47, 49, 58-60, 70-73, 78, 129, CIV
IDIOM PRESS 16, 83
INTERFLEX 16
INTERNATIONAL ANTENNA 16, 121
ISOTRON 16, 122
JPS 16
JSC 16
KC TRACKER (LL GRACE) 12, 132
K-COM 16, 84
KLM 16
KACHINA 16
KANTRONICS 16, 51, 88
KENWOOD ... 16, 17, 33, 49, 52, 61-62, 70-73, 86, 88, 139
KOSS 17, 52
LAKEVIEW CO 17, 125
LARSEN ANTENNAS 17, 32, 118-119
LOGSAT 17, 88
M2 ANTENNAS 17, 18, 120, 132
MFJ ... 18-20, 48, 51, 53, 70, 75, 79, 81, 83-85, 124, 126, 128-130, 138-139
MG ELECTRONICS 20
MAGELLAN 20, 34
MAHA 20, 21, 78, 137
MALDOL 21
MANUFACTURER IFORMATION 152
MAXON 21, 31, 33
MIDLAND 21, 33
MIRAGE 21, 77-78, 82, 130
MONITOR AMERICA 21, 89
MOTOROLA 21, 33
NCG 21, 138
NEW WAVE 21, 130
NORCOMM 21, 50
NYE VIKING 21, 84, 129
OAK BAY 21
OREGON SCIENTIFIC 21, 30
OUTBACKER 21, 92
PACCOMM 21, 51
PALOMAR ENGINEERS . 22, 82, 126, 141
PAR ELECTRONICS 22, 84, 125
PENETROX 22, 128
PHILIPS 22, 133, 142
PIPO 22, 50
POLICE CALL 22
POLYPHASER 22, 87, 131
POUCH, The 22, 138
PREMIER/PRYME 22, 52, 56-57, 121
PRO AM by VALOR 22, 23
QSL CARD HOLDERS (ARTSCI) ... 23, 141
RCA 23, 142
RF APPLICATIONS 23, 82
RF CONCEPTS 23
RF INQUIRY 23, 84
RF LIMITED 23
RF PARTS (DIAMOND ANT) ...10, 11, 74, 80, 109-112, 125, 130
RF PRODUCTS 23
RACOM 23
RADIO AMATEUR CALLBOOK 23, 87, 89
RAMSEY 23
RANGER 23, 71
ROHN 23, 134
SGC 23, 63-65, 72, 78
SANGEAN 23, 46
SEQUOIA 23, 87-88
SHAKESPEARE 24, 125
SHURE 24, 52
SMILEY ANTENNA 24, 121
SOLARCON 24, 32, 125
SONY 24, 31, 36-44
STANDARD 24
STARTEK 24
SUPERIOR ACCESSORIES 24, 139
SVETLANA 24, 140
SYNTHETIC TEXTILES 24, 127
TV ALLOWANCE 24, 142
TV GUARDIAN 24, 142
TERK 24, 143
TEXAS BUGCATCHER 24, 124
TIMES MICROWAVE SYSTEMS 24, 71
TIMEWAVE/AEA 24, 51
TRIPP LITE 24, 74
TUBES 24, 25
TUNE BELT 25
US TOWER 25, 135
UNADILLA/REYCO/W2AU 26-27, 125, 128
UNIDEN 25, 32, 35, 49
UNIFIED MICROSYSTEMS 25, 83, 139
UNIVERSAL TOWERS 25,26, 136
VALOR (PRO AM) 22, 23, 130
VANCO 26, 80, 139
VAN GORDON 26, 122
VECTRONICS 26, 70, 77, 81, 84, 126
VENTENNA 26, 122
VIBROPLEX 26, 82
W2AU (UNADILLA) 26-27, 125, 128
W5YI/WEST 27, 87-88
WA1FFL 26, 129
WAHL 27, 141
WALNUT CREEK 27, 87, 89
WELLER 27, 41
WILSON 27, 32
WINEGARD 27, 127, 143
X-10 ..... 27, 31
YAESU .... 27-29, 33, 46, 49, 66-73, 78, 80, 130, 133, CIII
ZEISS 29, 144
ZENITH 29
ZM EXPRESSIONS 29

BY PRODUCT TYPE

2M HT's 4, 5, 15-16, 28, 55, 59, 61
6M HT's 4, 8, 70
220MHz HT's 4, 5, 28, 55, 56, 66
440MHz HT's 4, 5, 16, 28, 55
1.2 GHZ HT'S 28
DUAL BAND HT'S .. 4, 5, 15-17, 28, 55, 57, 59, 61, 66
TRI-BAND HT'S 15, 28, 59, 66
QUAD BAND HT 15, 59
AIRCRAFT RADIOS 15, 29, 49
AMPLIFIERS ... 6, 14, 20, 21, 23, 27, 58, 65, 67, 76, 77, 78
ANTENNA SWITCHES 6, 76, 93, 129
ANTENNA ROTORS. 8, 13, 22, 23, 120, 132, 133
ANTENNA TUNERS 5, 6, 13, 14, 18, 21, 23, 26, 53, 63, 65, 76, 77, 126, 129
ANTENNA WIRE 7, 8, 127
BALUNS 6, 8, 26, 123, 128
BASE ANTENNA'S .. 6-8, 10, 11, 13, 16, 17, 19, 22-23, 24, 26, 91, 92, 94, 95, 98-110, 113, 115, 117, 119-125
BATTERIES ..4, 5, 15, 16, 17, 19, 20, 21, 25, 27, 28, 137, 138, 139
BINOCULARS 7, 29, 144, 145
BOOKS/SOFTWARE .. 4, 86-89, 90, 132
CB EQUIPMENT 8, 25, 27, 32, 115
CARRYING CASES 22, 138
CHARGERS 20, 137, 139
CLOCKS 6, 8, 18, 29, 30, 85
CLOSEOUTS 29
COAXIAL CABLE/LADDER LINE 7, 8, 26, 71, 127, 128
COMPARISION CHARTS 70-73
CONNECTORS 9
DIGITAL CAMERA 23, 142
DIGITAL MP3 PLAYER 23, 142
DSP 12, 15, 24, 64
DUMMY LOADS 6, 18, 76, 81
DUPLEXERS/TRIPLEXERS 9, 11, 110, 130
FAMILY/PERSONAL RADIO 5, 8, 15, 17, 21, 29, 33, 53, 61
FILTERS 6, 7, 10, 11, 16, 18, 29, 84, 123, 139
GPS UNITS/SOFTWARE ..10, 12, 20, 34
HEADPHONES/EARPHONES 17, 21, 52, 53, 54
HF RADIOS .....CI, 5, 13, 14, 16, 19, 23, 27, 55, 58, 61, 63, 64, 67, 68, 71, CIII, CIV
HT/SCANNER ANTENNAS ...10, 17, 24, 110, 118, 121, 124
INTERCONNECTS 8, 9, 85
INVERTERS 6, 74
KEYS/KEYERS/PADDLES ..7, 16, 18, 25, 26, 82, 83, 93, 123, 138, 139
KITS 23, 26, 70
LICENSE/CODE MATERIALS.4, 6, 8, 10, 11, 18, 27
MARINE RADIOS & ANTENNAS 17, 24, 49, 125
METAL DETECTORS 7, 140
MICROPHONES 6, 12, 24, 52, 53, 54
MOBILE ANTENNAS .. 8-11, 13, 17, 19, 21, 24, 92, 93, 95-97, 111, 112, 114, 116, 118, 119, 123-125
MOBILE 2M 4, 5, 14, 16, 28, 55, 59, 60, 61, 66, 68, 71
MOBILE 6M 5, 55
MOBILE 10M (10/12M) 5, 55, 71
MOBILE 220MHZ 14, 16, 56, 61
MOBILE 440 MHZ 4, 5, 16, 55, 60
MOBILE 1.2GHZ 16, 61
MOBILE DUAL BAND .5, 14, 16, 28, 55, 59-62, 66, 68, 69
NEW PRODUCTS 1
PACKET 5, 16, 21, 51
POWER SUPPLIES ... 4-6, 24, 53, 74, 75
PREAMPS 6, 77, 130, 141
QSL CARD HOLDERS 6, 23, 141
REPEATERS 15, 28, 70
ROTORS 13, 28
ROTOR CABLE 7, 15, 133
SCANNERS ..... CII, 4, 5, 14, 25, 27, 35, 36, 53
SECURITY/HOME AUTOMATION 11, 27, 30, 31, 142
SELF-POWERED PRODUCTS 11, 31
SHORTWAVE ..... CII, 10, 11, 12, 14, 18, 23, 24, 27, 37-48, 66, 69
SOLAR CELLS 138
SOLDERING TOOLS 27, 141
SURGE/LIGHTNING DEVICES . 5, 6, 10, 12, 22, 74, 91, 129, 130, 131
SWR/WATTMETERS & ANALYZERS .. 6, 7, 10, 11, 18, 21, 23, 26, 76, 79, 80, 81, 82
TV/FM/AM ANTENNAS 8, 27, 143
TELEPHONES 25, 32
TELESCOPES 7, 8, 144, 145
TELEVISION ACCESSORIES 23, 127, 27, 142, 143
TEST EQUIPMENT 6, 7, 24, 26, 80
TONE ENCODERS/DECODERS 9, 10, 21, 50
TOOLS 4, 141
TOWERS/TRIPODS ...11, 12, 23, 25, 26, 130, 134-136
TUBES 24, 25, 140
USED EQUIPMENT & DEMOS 2
WEATHER INSTRUMENTS 10, 21, 30, 31
WEATHER PROOFING PROUCTS ..8, 10, 21, 128

CODES WITHIN THE PRICE LIST

(T) Item too large for UPS. Shipment by truck only. No COD, please send payment in advance or use charge card for merchandise. Freight charges will be collected upon delivery

Note: Charges for truck shipments from 1-99 lbs are running a minimum of $80.00, plus local destination charges. It is advisable to contact a local freight office for a quotation.

(D) **DISCONTINUED** by Manufacturer but still available from stock in limited quantities when this price list was published.

(†) **TEMPORARY LOW PRICE** due to Special Purchase, over-stock, etc. Quantities may be limited at price shown.

(Δ) Item *not* discontinued by Manufacturer but probably will not be available from our stores when present stock is sold out.

All Prices and Specifications in this catalog are subject to change without notice • Due to foreign currency fluctuations, promotions, manufacturer's specials, etc., prices may vary, so please confirm prices with salesperson before ordering •

AMATEUR ELECTRONIC SUPPLY® is not responsible for typographical errors or omissions.

Copyright© 2000 AMATEUR ELECTRONIC SUPPLY®

ADI (ADI)

		AES Price
AT-201HP	5w 2m FM HT/batt/cgr/TTP	*139.95
	*Price w/instant coupon; coupon expires 4/30/00	
AT-400HP	5w 440 FM HT/batt/cgr/TTP D	119.95
AT-401HP	5w 440 FM HT/batt/cgr/TTP	229.95
AT-600HP	5w 2m/440 FM HT/batt/cgr/TTP	*259.95
	*Price w/instant coupon; coupon expires 4/30/00	
ARC-12	Smart charger	62.95
CC-1802	Mobile batt cgr; AT201HP/401HP	43.95
CHA-072	Wall charger for RBP-072 batt	12.95
CHA-120	Wall charger for RBP-120 batt	12.95
CHA-612	Wall charger for RBP-612 batt	14.95
CHA-672/CHA-607	Wall cgr; RBP-607 batt	14.95
CPB-262/CBP-262	Batt holder; 6 AA nicads	19.95
MQA-999	Rapid charger	62.95
PCA-145	Cig lighter cable; not for AT-600	14.95
PCA-600	Cig lighter cable for AT-600	15.95
PROG-600	PC prog soft/cable for AT-600	39.95
RBP-072	7.2v 700ma battery	34.95
RBP-120	12v 600ma nicad battery	44.95
RBP-120NMH/RBP-120H	12v 600ma NiMH	69.95
RBP-607	7.2v 700ma battery for AT-600	34.95
RBP-612	12v 600ma battery for AT-600HP	44.95
RBP-612NMH/RBP-612H	13.2v 1000ma NiMH; 600	69.95
SLC-200/SLC-200-S	2.5w case; not AT-600	18.95
SLC-200-L	5w carrying case; not for AT-600	20.95
SLC-600-S	2.5w carrying case; AT-600	18.95
SLC-600-L	5w carrying case; AT-600HP	20.95
See Premier for speaker/mics for ADI HTs		
AR-147+	60w 2m FM Xcvr w/TTP mic	*189.95
	*Price w/instant coupon; coupon expires 4/30/00	
AR-247	30w 220 FM Xcvr w/TTP mic	299.95
AR-446	35w 440 FM Xcvr w/TTP mic D	229.95
AR-447	35w 440 FM Xcvr w/TTP mic	*249.95
	*Price w/instant coupon; coupon expires 4/30/00	
See Premier for sun visor mic/cables for ADI mobiles		

ADI/PRYME

PR-52	5w 6m FM HT/batt/cgr/TTP	*194.95
	*Price w/instant coupon; coupon expires 4/30/00	
PR-222	5w 220 FM HT/batt/cgr/TTP	*194.95
	*Price w/instant coupon; coupon expires 4/30/00	

ADI - continued

		AES Price
CC-1802	Mobile battery charger	43.95
CHA-120	Wall charger for RBP-22 batt	12.95
CPB-263/CBP-263	AA battery case	19.95
MQA-999	Rapid charger	62.95
PTC-001	Mobile power pack	28.95
RBP-22	Extra 12v 600ma nicad battery	44.95
RBP-22H	12v 1000ma NiMH battery	69.95
SLC-22L	Leather case	14.95
See Premier for speaker/mics for ADI/Pryme HTs		

AEA (AEA)

ARE-63/HL-63	Interface cable for Yaesu D	$ 14.95

AES (AES)

SB-115	AC-DC 5A power supply Δ	$ 14.95
SC-146	Double socket lighter plug Δ	4.95
SC-189	Rechargeable florescent lantern Δ	19.95
SC-199	Compact cordless spot/yellow Δ	14.95

AOR (AOR)

AR-3000AB	.1-2036MHz dlx w/SSB/cell blkd	1099.95
MM-1	Mobile mounting bracket; AR-3000A	22.95
SDU-5500	Spec disp; AR-3000A/Ico base Rcvr	1099.95
AR-5000B	.01-2600MHz scan/cell blkd/spec ord	1899.95
AR-7000B	.1KHz-2GHz/cell blocked	1169.95
SAC-8000	Opt Scout/AR8000 connect kit D	9.95
SC-2700	Soft case for AR-2700 D	14.95
AR-16B	.5-1300MHz hand scan/cell blkd D	229.95
AR-8200B	.5-2040MHz hand/SSB/cell blkd	549.95
LC-8200	Leather case for AR-8200B	24.95
SC-8200	Soft case for AR-8200B D	10.95
SC-8200P	Soft case for AR-8200B	13.95

ARRL (ARR)

098	1999 Radio Amateur's HB CD-ROM D	$ 24.95
100	2000 Radio Amateur's Handbook	32.00
101	2000 Radio Amateur's HB CD-ROM	39.95
104	1990-94 QST on CD-ROM	39.95
105	1985-89 QST on CD-ROM	39.95
106	1980-84 QST on CD-ROM	39.95
107	1975-79 QST on CD-ROM	39.95
108	1970-74 QST on CD-ROM	39.95
110	200 Meters and Down (early ham radio)	8.00
114	AM Radio Mail Order Catalog	14.95
116	APRS Tracks, Maps & Mobiles	14.95
120	Advanced Class License Manual	12.00
123	Advanced Class Video Course	99.00
124	Advanced Course exam book only	19.00
125	Advanced Class Video Course w/software	129.00
126	Antenna Book w/IBM software	30.00
128	Antenna Book CD-ROM	39.95
130	Antenna Compendium 1	10.00
135	Antenna Compendium 2	14.00
137	Antenna Compendium 6 w/software	20.00
138	Antenna Compendium 4 w/software	20.00
139	Antenna Compendium 5 w/software	20.00
140	Antenna Impedance Matching	20.00
142	Best of the New Ham Companion	12.00
143	Beyond Line of Sight	12.00
144	Circular Frequency Guide	7.95
145	Complete DX'er	12.00
146	DXCC Companion	8.00
148	DXCC countries list	3.00
149	DXing on the Edge	29.95
150	Data Book	15.00
153	Easy Target	5.95
156	Extra Class License Manual	12.00
160	FCC Rule Book	12.00
163	Firewatch!	5.95
171	General Class License Manual	14.00
172	General Class Video Course	99.00
173	General Course exam book only	19.00
174	General Class Video Course w/software	129.00
180	Grid Locator Atlas	5.00
182	Ham Radio Made Easy	15.95

ARRL - continued

		AES Price
184	HF Digital Handbook	15.00
187	Hints and Kinks 15th edition	12.00
190	Hostage in the Woods	5.95
191	Interference Handbook Δ	14.00
192	Introduction to Morse Code CD's (2)	14.00
195	Introduction to Morse Code cassettes	12.00
198	Introduction to Radio Frequency Design	30.00
201	Log Book	5.00
205	Minilog	4.00
210	Morse Code the Essential Language	8.00
216	Morse Tutor Gold (3½") software for IBM	30.00
218	Net Directory	4.00
220	Night Signals	5.95
225	North American Repeater Atlas	12.00
230	Novice Notes: The Book	6.00
236	Now You're Talking (new ham)	19.00
240	Operating Manual	25.00
246	2000 Passport to Worldband Radio	19.95
248	Personal Computers in the Ham Shack	15.95
252	Packet: Speed, More Speed & Applications	15.00
253	Practical Packet Radio	15.95
254	1995 ARRL Periodicals CD-ROM	19.95
256	QRP Power	12.00
257	1996 ARRL Periodicals CD-ROM	19.95
258	RF Exposure and You	15.00
259	1997 ARRL Periodicals CD-ROM	19.95
261	Radio Frequency Interference	20.00
262	Radio Buyer's Sourcebook volume 2	15.00
263	1998 ARRL Periodicals CD-ROM	19.95
264	Satellite Handbook	22.00
266	1999 ARRL Periodicals CD-ROM	19.95
270	1999/2000 Repeater Directory D	8.00
271	2000/2001 Repeater Directory	8.00
277	Satellite Anthology 5th edition	15.00
285	Set 1 5-10 wpm code practice cassettes	12.00
290	Set 2 10-15 wpm code practice cassettes	12.00
295	Set 3 15-22 wpm code practice cassettes	12.00
301	10-15 wpm code practice audio CD	14.00
302	15-22 wpm code practice audio CD	14.00
303	5-10 wpm code practice audio CD	14.00
305	Solid State Design	15.00
308	Spread Spectrum Source Book	20.00
314	Tech Q & A License Manual	12.95
317	Technician Class Video Course	99.00
318	Technician Course exam book only	19.00
319	Technician Class Video Course w/software	129.00
320	Transmitter Hunting	19.00
323	TravelPlus for Repeaters 99/00 CD-ROM	39.95
324	UHF/Microwave Project Manual vol 2	15.00
325	USA Map	8.00
328	Understanding Basic Electronics	20.00
329	Vertical Antenna Classics	12.00
332	VHF/UHF Radio Buyer's Source Book	12.00
340	W1FB's QRP Notebook	10.00
342	Weather Satellite Handbook	20.00
343	WX Satellite Handbook companion software	10.00
344	Wire Antenna Classics	14.00
345	World Map	12.00
346	World Azimuthal Map	12.00
347	Radio Amateurs World Atlas	9.95
354	Your Mobile Companion	12.00
356	Your VHF Companion	10.00
357	Your Ham Antenna Companion	10.00
358	Your Packet Companion	10.00
361	Your HF Digital Companion	10.00
405	RSGB Radio Communications Handbook	38.00

AIM (AIM)

24-7735P	Coax stripper; RG-58/59/62	$ 21.95
24-7736P	Coax stripper; RG-59/6/8281	21.95
24-7739P	Coax stripper; RG-8/11/213	28.95
37-503	6-socket surge/EMI/RFI filt Δ	6.95
38-305	500ma 3/4.5/6/7.5/9/12vdc adapter	9.95
38-312	1.2A 1.5/3/4.5/6/7.5/9/12vdc adapt	29.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Aim - continued

	AES Price
38-384 4A power supply, 5A surge	39.95
64-12UUP 12' RG-58 w/PL-259s ....D	5.95

ALINCO (ALI)

EDC-26 DC cord/cgr w/filter; EBP-10NA ....Δ	$ 9.95
DJ-C4T* 440 300mw cc size HT/lith ion ...D	69.95
*No internal spkr DJ-C4T - must use earphone	
DJ-C5T 300mw cc size 2m/440 HT/lith ion/spkr	*149.95
*Price w/instant coupon; coupon expires 4/30/00	
EDC-36 Power cable w/filter	24.95
EME-6 Earphone	11.95
EME-12 Headset w/earphone/mic/VOX	70.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-16 Tie-pin mic & earphone	19.95
EME-17 Boom earphone mic	29.95
EME-18 Earphone	11.95
EDS-7 Mic adapt; EME-12/13/15/16/17/18	10.95
EMS-49 Miniature lapel spkr/mic	35.95
EMS-50 Speaker/mic	39.95
DJ-180TH 5w 2m FM HT/batt/cgr/TTP	*149.95
*Price w/instant coupon; coupon expires 4/30/00	
DJ-280TH 5w 220 FM HT/batt/cgr/TTP	*169.95
*Price w/instant coupon; coupon expires 4/30/00	
EBC-3 Belt clip	5.95
EBP-24N 7.2v 1200ma batt; 180/580/582T	78.95
EBP-26N 7.2v 700ma battery; 180/582	41.95
EBP-28N 12v 700ma batt; 180/582	68.95
EDC-43 Cig lighter cable	8.95
EDC-45 Quick charger (not for F1)	84.95
EDC-49 Batt cgr; EBP-20/22/24/26/28N	23.95
EDH-11 AA alk pack; DJ-180/580/582T	10.95
EDH-12 DC jack adapter; DJ-180/280TH	10.95
EJ-12U Tone decode unit; DJ-F1T ....Δ	19.95
EJ-14U 50 ch mem unit; DJ-180/280TH	21.95
EJ-15U 200 ch mem unit; DJ-180TH	29.95
EME-6 Earphone	11.95
EME-10 Headset/VOX/PTT; 160/560/580/582 D	39.95
EME-11 Ear/microphone w/PTT/VOX	52.95
EME-15 Tie-pin mic w/VOX	55.95
EME-16 Tie-pin mic & earphone	19.95
EME-17 Boom earphone mic	29.95
EMS-51 Speaker/mic	39.95
ESC-18 Soft case; 180TH/EBP-26N	14.95
ESC-19 Soft case; 180TH/EBP-28N	18.95
EBP-31N 7.2v 1200ma nicad; DJ-G1T ....Δ	59.95
EBP-32N 12v 722ma nicad; DJ-G1T ....D	69.95
EDC-52 Quick charger; DJ-G1T ....D	79.95
EDC-55 Wall cgr; EBP30/31/32N; G1T ....Δ	14.95
EDH-14 Dry cell battery case; DJ-G1T ....Δ	10.95
EJ-16U Tone squelch unit; DJ-G1T ....Δ	29.95
ESC-23 Soft case for EBP-30N; DJ-G1T ....Δ	11.95
ESC-24 Soft case; EBP-31N/32N; G1T ....Δ	14.95
DJ-G5TH 5w 2m/440 HT/EBP36N/cgr/TT	*279.95
*Price w/instant coupon; coupon expires 4/30/00	
EBC-6 Mobile bracket	16.95
EBP-33N 4.8v 650ma nicad battery	63.95
EBP-34N 4.8v 1200ma nicad battery	82.95
EBP-35N 7.2v 900ma nicad battery	97.95
EBP-36N 9.6v 650ma nicad battery	67.95
EBP-37N 4.8v 700ma nicad battery	34.95
EDC-16B Cigarette lighter cable w/filter	22.95
EDC-36 Power cable w/filter	24.95
EDC-60 Quick charger ....D	79.95
EDH-16 Dry cell battery case	10.95
EJ-28U CTCSS decoder unit; DJ-191T/TH	42.95
EME-6 Earphone	11.95
EME-12 Headset w/earphone/mic/VOX	70.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-15 Tie-pin mic w/VOX	55.95
EME-16 Tie-pin mic & earphone	19.95
EME-17 Boom earphone mic	29.95
EMS-8Z Remote speaker/mic	48.95
EMS-47 Spkr/mic w/volume control	25.95
EMS-51 Speaker/mic	39.95

Alinco - continued

	AES Price
ESC-28 Soft case for EBP-33N	10.95
ESC-29 Soft case for EBP-37N	10.95
ESC-30 Soft case for EBP-34N/35N/36N	10.95
DJ-195T 5w 2m FM HT/batt/cgr/TTP	*159.95
*Price w/instant coupon; coupon expires 4/30/00	
EBC-6 Mobile bracket	16.95
EBP-48N 9.6v 700ma 5w nicad battery	65.95
EDC-36 Power cable w/filter	24.95
EDC-37 13.8v power cable	7.95
EDC-88 Multi-voltage rapid charger	53.95
EME-6 Earphone	11.95
EME-12 Headset w/earphone/mic/VOX	70.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-15 Tie-pin mic w/VOX	55.95
EMS-47 Spkr/mic w/volume control	25.95
EMS-51 Speaker/mic	39.95
ERW-4 PC cable	27.95
ESC-36 Soft case for EBP-48N	12.95
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP	*239.95
*Price w/instant coupon; coupon expires 4/30/00	
EBP-45N 6v 700ma 2w nicad battery	47.95
EBP-46N 9.6v 700ma 5w nicad battery	65.95
EDC-36 Power cable w/filter	24.95
EDC-37 13.8v power cable	7.95
EDC-43 Cig lighter cable	8.95
EDC-91 Quick charger	53.95
EDH-29 Dry cell case for 4-AA's	12.95
EME-6 Earphone	11.95
EME-12 Headset w/earphone/mic/VOX	70.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-15 Tie-pin mic w/VOX	55.95
EME-16 Tie-pin mic & earphone	19.95
EME-17 Boom earphone mic	29.95
EMS-8Z Remote speaker/mic	48.95
EMS-47 Spkr/mic w/volume control	25.95
EMS-51 Speaker/mic	39.95
ESC-35 Soft case for EBP-45N/46N	12.95
DJ-S11T 340mw 2m FM HT/battery holder	*79.95
*Price w/instant coupon; coupon expires 6/30/00	
DJ-S41T 340mw 440 FM HT/battery holder	*79.95
*Price w/instant coupon; coupon expires 6/30/00	
EBC-6 Mobile bracket	16.95
EDC-78 Wall charger; (not for alkalines)	10.95
EDH-18 12v to 5.5v DC/DC conv/cig plug	33.95
EME-6 Earphone	11.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-15 Tie-pin mic w/VOX	55.95
EME-16 Tie-pin mic & earphone	19.95
EMS-47 Spkr/mic w/volume control	25.95
EMS-51 Speaker/mic	39.95
ESC-27 Soft case	16.95
DJ-X10T .1MHz-2GHz AM/FM/SB hand/cell blkd	*319.95
*Price w/instant coupon; coupon expires 4/30/00	
EBP-33N 4.8v 650ma nicad battery	63.95
EBP-34N 4.8v 1200ma nicad battery	82.95
EBP-37N 4.8v 700ma nicad battery	34.95
EDC-16B Cigarette lighter cable w/filter	22.95
EDC-36 Power cable w/filter	24.95
EDC-37 13.8v power cable	7.95
EDH-16 Dry cell battery case	10.95
ERW-4 PC cable	27.95
DR-M03SX 10w 10m FM Xcvr/encoder	*164.95
*Price w/instant coupon; coupon expires 6/30/00	
DR-M06TH 20w 6m FM Xcvr/TTP/encoder	*249.95
*Price w/instant coupon; coupon expires 6/30/00	
DR-140TQ 50w 2m FM/TTP/EJ20U tone sq	*194.95
*Price w/instant coupon; coupon expires 4/30/00	
DR-140TPKT 2m FM/1200 bps packet Xcvr	*174.95
*Price w/instant coupon; coupon expires 4/30/00	
EMS-14 Desk top microphone	113.95
EDS-8 Adapter for EMS-14 w/DR-140	24.95
DR-150TQ 50w 2m FM Xcv/TTP/EJ20U tone sq	*219.95
*Price w/instant coupon; coupon expires 4/30/00	
CC-150 Cloning cable for DR-150TQ	14.95

Alinco - continued

	AES Price
DR-430TQ 35w 440 FM Xcv/TTP/EJ20U tone sq	*229.95
*Price w/instant coupon; coupon expires 6/30/00	
EJ-19U Memory expansion unit	28.95
EJ-8U DTMF squelch; DR-590/592/599 ....Δ	29.95
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	*339.95
*Price w/instant coupon; coupon expires 6/30/00	
EMS-14 Desk top microphone	113.95
EDS-8 Adapter for EMS-14 w/DR-605	24.95
DR-610TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	*439.95
*Price w/instant coupon; coupon expires 6/30/00	
EBC-8 Front control head bracket; 610TQ	16.95
EDS-1 Junc box w/ext spkr, mic jacks; 610TQ	56.95
EDS-2 3 meter ext cable; EDS-1/610TQ	23.95
EDS-3 5 meter ext cable;EDS-1/610TQ	39.95
EJ-23U Additional memory unit; 610TQ	35.95
EMS-11 Extra TTP microphone ....D	50.95
EMS-12A Extra TTP microphone	50.95
DX-70TH Comp HF Xcvr/100w 6m/mob bkt	*759.95
*Price w/instant coupon; coupon expires 4/30/00	
DM-330MVT 30A switching ps/meter/32A surge	199.95
DM-340MVT 30A ps w/meters/35A surge	179.95
EBC-8 Front control head bracket	16.95
EBC-9 Mobile bracket	32.95
EDS-4 Rem mt acc kit w/5' cable, 2 covers	31.95
EDS-5 Microphone extension cable	28.95
EDS-6 15' remote cable	53.95
EDX-1 Manual coax feed antenna tuner	269.95
EDX-2 160-10m 200w auto wire ant tuner	319.95
EMS-14 Desk top microphone	113.95
DX-77T 160-10m HF Xcvr	*719.95
*Price w/instant coupon; coupon expires 4/30/00	
DM-330MVT 30A switching ps/meter/32A surge	199.95
DM-340MVT 30A ps w/meters/35A surge	179.95
EDS-5 Microphone extension cable	28.95
EDX-1 Manual coax feed antenna tuner	269.95
EDX-2 160-10m 200w auto wire ant tuner	319.95
EMS-14 Desk top microphone	113.95
ERW-4 PC cable	27.95

CONSUMER ELECTRONICS

DJ-S46 Family radio svc handheld/batt/cgr	*94.95
*Price w/instant coupon; coupon expires 6/30/00	
EBC-6 Mobile bracket	16.95
EDC-78 Wall charger; (not for alkalines)	10.95
EDH-18 12v to 5.5v DC/DC conv/cig plug	33.95
EME-6 Earphone	11.95
EME-13 Headset w/ear bud/mic/VOX	70.95
EME-15 Tie-pin mic w/VOX	55.95
EME-16 Tie-pin mic & earphone	19.95
EMS-47 Spkr/mic w/volume control	25.95
EMS-51 Speaker/mic	39.95
ESC-27 Soft case	16.95

ALPHA DELTA (ALP)

R-T/N 200w 1 GHz type N protector ....D	$ 24.95
Extra **arc-plug** cartridge; **R-T/N** ....Δ	8.95
HV/N 2kw 1 GHz type N protector ....D	34.95
LT 200w 28 MHz 'T' SO-239 protector ....D	24.95
Extra **arc-plug** cartridge for **LT** or LT/N ....Δ	9.95
RT/2G 200w 500 MHz lightning protector ....D	39.95
Extra **arc-plug** cartridge for **RT/2G** ....Δ	9.95
RT-N/2G 200w 1 GHz type N protector ....D	34.95
Extra **arc-plug** cartridge for **RT-N/2G** ....Δ	9.95
HV/2G 2kw 500 MHz lightning protector ....D	44.95
Extra **arc-plug** cartridge for **HV/2G** ....Δ	10.95
HV-N/2G 2kw 1 GHz type N protector ....D	49.95
Extra **arc-plug** cartridge for **HV-N/2G** ....Δ	10.95
ATT-3G50 200w 3GHz type N surge protector	59.95
ATT-3G50-HP 2kw 3GHz type N surge protector	59.95
ATT-3G50U 200w 500MHz surge protector	49.95
ATT-3G50U-HP 2kw 500MHz surge protector	49.95
ATT Extra 200w arc-plug cartridge	10.95
ATT-HP Extra 2kw arc-plug cartridge	10.95
Delta-2 500 MHz 2-pos coax switch/protector	49.95

Alpha Delta - continued

	AES Price
Delta-2/N 1.3 GHz 2-pos type N switch/protector	64.95
Delta-4 500 MHz 4-pos coax switch/protector	79.95
Delta-4/N 1.3 GHz 4-pos type N switch/protector	89.95
D-4 Extra arc-plug; Delta-2/2N/4/4N	9.95
Delta-4C 4-pos coax switch/protector console	139.95
Delta-4CN 4-pos N coax switch/protector console	149.95
Delta-C Kit w/ctr ins/2 end ins/static protect	29.95
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.95
Delta-CIN Antenna end insulator ....each	1.95
DH-1 Hydraulically dampened 41" fold mast/base	249.95
DH-2 Hydraulically dampened 41" fold mast/no base	229.95
DX-80 80m 134' complete dipole antenna	49.95
DX-40 40m 67' complete dipole antenna	39.95
DX-20 20m 34' complete dipole antenna	39.95
DX-A 160-80-40m twin sloper antenna	59.95
DX-B 160-80-40-30m 60' sloper ant	69.95
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	119.95
DX-DD 80-40m 82' Delta Dipole antenna	89.95
DX-EE 40-10m 4-band 40' no trap, no tuner dipole	99.95
DX-LB 160-80-40m 100' shortened dipole	119.95
DX-LB Plus 160/80/40/20/15/10m 100' short dip	149.95
DX-SD 80/20m 38' short dipole ....D	69.95
DX-SWL AM broadcast-13m 60' SWL sloper ant	79.95
DX-SWL-S 90-13m 40' SWL sloper ....Δ	39.95
DX-Ultra AM broadcast-30MHz 80' SWL dipole	119.95
Outpost Base tripod mtg sys for mobile ant	199.95
SK-1 Straight Kent key	129.95
SP-1 Single paddle Kent key	139.95
TK-1 Titanic replica straight Kent key	149.95
TP-1 Twin paddle iambic Kent key	149.95
VRC Variable response speaker console	249.95
VRC-2 Ducted port bass reflex speaker	99.95
Basic Technology Amateur Radio video & book	39.95

Also see OUTBACKER

AMECO PUBLICATIONS (AME)

4-01 Code Course Instruction Booklet	$ 2.00
6-01 Mastering the Morse Code	3.00
12-01 General Class FCC Test Manual	9.95
17-01 Extra Class FCC Test Manual	9.95
23-01 Novice Theory Course	9.95
26-01 Advanced Class FCC Test Manual	9.95
27-01 Novice Class FCC Test Manual	9.95
28-01 Technician Class FCC Test Manual	9.95
78-01 No Code Technician FCC Test Manual	12.95
102-01 Amateur Radio Theory Course	9.95
EN-1 Novice Class Exam	2.50
PC-12-01 General FCC learning software	24.95
PC-17-01 Extra FCC learning software	24.95
PC-26-01 Advanced FCC learning software	24.95
PC-27-01 Novice FCC learning software	24.95
PC-28-01 Technician FCC learning software	24.95
PC-78-01 No Code Tech FCC learning soft	29.95

CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7½ wpm	$ 5.95
101-T Senior code tapes, 0-18 wpm	10.95
103-T Advanced code tape, 8-18 wpm	5.95
104-T Extra Class code tape, 20 wpm	5.95
105-QT General Class QSO code course tape	5.95
106-QT Extra Class QSO code course tape	5.95
107-PC-2 IBM Morse Code Course, version 2.0	29.95
NP-1 Novice Code & Theory Course	12.95

CODE PRACTICE OSCILLATORS & CODE KEYS

K-1 Bakelite type key	$ 10.95
K-4 Brass type key	16.95
OCM-2K Code oscillator & CW monitor kit	19.95
OCM-2W Wired oscillator & CW monitor	24.95

PREAMPLIFIERS

TPA Tunable preamp & indoor active ant	$ 76.95
P-9T Power supply for TPA	9.95
PT-3 2-54 MHz transceiver preamp	124.95
P-12T Power supply for PT-3	9.95

Ameco - continued

DUMMY LOADS & FILTERS

	AES Price
DL-1500F 1500w dummy load w/fan ....Δ	$ 39.95
HP-75T 75 ohm high-pass filter	12.95
HP-300T 300 ohm high-pass filter	12.95

AMERITRON (AMR)

AL-80B 1kw PEP out linear (3-500Z)	1199.95
AL-82 1.5kw PEP out linear (2 3-500Zs)	1999.95
AL-572 1.3kw PEP out linear (4 572Bs)	1299.95
AL-800 1250w PEP out linear (3CX800A7)	1529.95
AL-800H 1.5kw PEP out amp (2 3CX800A7)	2199.95
AL-811 600w PEP out linear (3 811As)	599.95
AL-811H 800w PEP out linear (4 811As)	749.95
AL-1200 1.5kw PEP out linear (3CX-1200A7)	2069.95
AL-1500 1.5kw PEP out linear (8877)	2469.95
ALS-500M 600w PEP out solid state mob amp	699.95
ALS-600 700w PEP out solid state amp w/ps	1129.95
ARB-702I Amplifier Xcvr interface; Icom	39.95
ARB-702I2 Amp Xcvr interface; Ico 706&MkII/G	39.95
ARB-702K Amplifier Xcvr interface; Kenwood	39.95
ARB-702Y Amplifier Xcvr interface; Yaesu	39.95
ATP-100 Amplifier tuning pulser	49.95
ATP-102 Deluxe amplifier tuning pulser	59.95
ATR-20 1.2kw PEP antenna tuner	419.95
ATR-30 3kw PEP antenna tuner	549.95
ADL-1500 1.5kw dummy load with oil	69.95
ADL-2500 2.5kw dummy load with fan	189.95
ICP-120 120v inrush protector	79.95
ICP-240 240v inrush protector	79.95
AWM-30 3kw PEP SWR/wattmeter/rem sens	139.95
QSK-5 Stand alone T/R switch	329.95
QSK-5PC PC board kit; T/R switch	229.95
CF-5 Cooling fan for QSK-5	39.95
RCS-4 4-pos wireless remote coax switch	129.95
RCS-8V 160-2m 5-pos remote coax switch	139.95
RCS-8VN 160-2m 5-pos N rem coax switch	149.95

Note: RCS-8V/VN require 8-wire control cable.

AMIDON (AMI)

1:1-HBH50 W2FMI 1:1 dipole/beam balun...Δ	$ 39.95
1.5:1-HB75 W2FMI 1.5:1 dipole balun....Δ	49.95
2:1-HB100 W2FMI 2:1 dipole/quad loop balunΔ	49.95
4:1-HB50 W2FMI 4:1 direct connect beam balun Δ	39.95
4:1-HBM200 W2FMI 4:1 folded dipole/LP balun Δ	39.95
4:1-HB/U200 W2FMI 4:1 off center fed balun Δ	49.95
6:1-HB/U300 W2FMI 6:1 off center fed balun Δ	69.95
12:1-HB600 W2FMI 12:1 rhombic/V-beam balun Δ	139.95
1.5:1-HU75 W2FMI 75:50 ohm unun ....Δ	39.95
1.56:1-HDU50 W2FMI 50:32&18 ohm unun Δ	39.95
1.78:1-HDU50 W2FMI 50:28&12.5 ohm unun Δ	39.95
1.78:1-HMMU50 W2FMI multimatch unun ..Δ	49.95
2:1-HDU50 W2FMI 50:22&25 ohm unun ....Δ	39.95
2:1-HDU100 W2FMI 100&112.5:50 ohm unun Δ	39.95
4:1-HCU50 W2FMI 50:12.5 ohm unun ....Δ	39.95
9:1-HU50 W2FMI 50:5.56 ohm unun ....Δ	39.95
BEV-U50 W2FMI Beverage antenna unun ...Δ	49.95
RFI-KIT-5 Ferrite/toroid RFI kit ....Δ	24.95
RFI-KIT-6 Ferrite/toroid RFI kit ....Δ	29.95

Antenna Specialists (ASP)

AP-143 2m on glass cellular look-alike ant	$ 69.95
APR151.3 2m 3db on glass antenna	69.95
KAV-382 On glass replacement mtg kit	11.95
MONR31 L/H/U gain gnd plane monitor ant	89.95
MONR33 L/H/U roof mt low prof monitor ant	53.95
MONR51 L/H/U magnet mt monitor antenna	62.95
MON-52 L/H/U/800MHz trunk lip monitor ant	65.95
MON-63 Coupler for scanner on car antenna	26.95

Antennas America (ANA)

HVA-146/CVA-146 75w 2m disguised decal ant	$ 69.95
HVA-460/CVA-460 75w 440 disguised decal ant	69.95

AES Price

Antenna Supermarket (ANT)

Eavesdropper* 60-11m trap dipole SWL ant	$ 79.95

*Specify **SO-239** or **twin**-lead

ANTENNA WORLD (ANW)

COM136-4500NP VHF/UHF port dipole/BNC	$ 19.95

ARROW Antenna (ARA)

146/437-10 3 el 2m/7 el UHF handheld beam	$ 73.95
10w duplexer (installs in boom)	59.95

ARTSCI (ART)

Amateur Handbook (Hambook)	$ 14.95
Simpleton's **Handy Re**ference book	2.00
Lost Users Manuals	19.95
US **Repeater Y2K** Mapbook 99/2000 edition	9.95

ASTATIC (AST)

10DA-L Dynamic mic head (no stand or cable)	$ 69.99
D-104-L Crystal mic head (no stand or cable)	42.99
T-UG9 Amplified desk stand	52.95
Night Eagle Brass/black crystal desk mic	119.95
T-UG9-D104 Amp mic, 6-wire w/stand	94.95
T-UP9-D104-SE Silver Eagle 6-wire amp	119.95
MC-320 Crystal mic cartridge for D-104	19.99

ASTRON (ASR)

RS-4L 3A ps, 4A surge, w/cig lighter socket	$ 49.95
RS-7A 5A power supply, 7A surge	59.95
RS-10A 7.5A power supply, 10A surge	69.95
RS-12A 9A power supply, 12A surge	79.95
RS-12S 9A ps, 12A surge, w/speaker	89.95
RS-20A 16A power supply, 20A surge	99.95
RS-35A 25A power supply, 35A surge	149.95
RS-35A/220V 220v 25A ps, 35A surge	169.95
RS-50A 37A power supply, 50A surge	219.95
RS-70A 57A power supply, 70A surge	259.95
RS-20M 16A ps w/meters, 20A surge	119.95
RS-35M 25A ps w/meters, 35A surge	169.95
RS-50M 37A ps w/meters, 50A surge	239.95
RS-70M 57A ps w/meters, 70A surge	289.95
VS-20ML Variable 16A ps/meters, 20A surge	139.95
VS-35M Variable 25A ps/meters, 35A surge	189.95
VS-50M Variable 37A ps/meters, 50A surge	259.95
RM-35M 25A rack mt ps/meters, 35A surge	249.95
RM-50M 37A rack mt ps/meters, 50A surge	279.95
RM-60M 50A rack mt ps/meters, 55A surge	359.95
SS-25 20A switching ps, 25A surge	109.95
SS-25M 20A switching ps/meters, 25A surge	129.95
SS-30 25A switching ps, 30A surge	119.95
SS-30M 25A switching ps/meters, 30A surge	139.95
12/115 200w solid state 12vdc-115vac inverter	69.95
2412 9A 22-32vdc to 13.8vdc converter ....D	29.95
N2412-12 9A 22-32vdc to 13.8vdc converter	49.95
N2412-24 16A 22-32vdc to 13.8vdc converter	79.95

AZDEN (AZD)

AD-16 DC power cord for HT ....D	$ 6.95
LC-16 Soft case for HT ....D	9.95
PTT-01 Switch; boom mic/headphones ....D	19.95

B & K (B&K)

541 Component comparator ....D	$199.95
830 Autoranging capacitance meter ....Δ	169.95
1646 0-16V, 0-10A power supply ....D	249.95
2831A Digital bench multimeter ....Δ	169.95

BMI (BMI)

972A 12" 12-hour wall clock	$ 28.95
972AD 14" 12/24-hour wall clock	32.95
973A 12" 24-hour wall clock	49.95
Nitelogger II Auto recorder activator	69.95
RC-1A Impedance matching patch cord	19.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

AES Price

B & W (B&W)

FL-10/1500	HF, 1kw, 52 ohm low-pass filter D	$ 75.95
AP-10	51" portable 40/20/15/10/6/2m ant D	89.95
AP-10A	51" portable 40/20/15/10/6/2m ant	89.95
AT-55	40/20/15/10m 55' trap antenna	87.95
AT-110	80/40/20/15/10m 110' trap antenna	99.95
AS-160	160/80/40/20m 137' trap dipole	154.95
AS-80	80/40/20m 78' trap dipole	119.95
AS-40	40/20/15/10m 40' trap dipole	154.95
AS-20	20/15/10m 20' trap dipole	119.95
AC-1.8-30	Continuous 1.8-30 MHz antenna	209.95
ACS-1.8-30	Continuous 1.8-30MHz stainless ant	299.95
AC-5-30	Continuous 5-30 MHz 65' antenna	199.95
ACS-5-30	Continuous 5-30 Mhz stainless ant	289.95
ASW-90	500 KHz - 30 MHz 90' receive only ant	149.95
AXS-160	160/30m 96' trap dipole	99.95
AXS-80	80/40/15m 65' trap dipole	119.95
BWD-1.8-30	1.8-30 MHz 90' folded dipole	199.95
BWDS-1.8-30	1.8-30 stainless 90' folded dip	289.95

BELDEN (BEL)

52 OHM COAXIAL CABLE

8216	RG-174 (sub-miniature) per ft.	$ .29
8216	100 ft. Roll	27.95
8216	500 ft. Roll	99.95
8216	1000 ft. Roll	189.95
9201	RG-58 (solid center) per ft.	.23
9201	100 ft. cut	21.95
9201	500 ft. Roll	89.95
9201	1000 ft. Roll	159.95
8240	RG-58U (solid center) per ft.	.29
8240	100 ft. Roll	27.95
8240	500 ft. Roll	99.95
8240	1000 ft. Roll	189.95
8259	RG-58AU (stranded center) per ft.	.32
8259	100 ft. Roll	29.95
8259	500 ft. Roll	99.95
8259	1000 ft. Roll	189.95
8219	RG-58AU (stranded, foam) per ft.	.34
8219	100 ft. Roll	30.95
8219	500 ft. Roll	104.95
8219	1000 ft. Roll	199.95
8262	RG-58C (non-contaminating) per ft.	.40
8262	100 ft. cut	36.95
8262	500 ft. Roll	134.95
8262	1000 ft. Roll	249.95
9258	RG-8X (stranded, foam) per ft.	.39
9258	100 ft. cut	34.95
9258	500 ft. Roll	129.95
9258	1000 ft. Roll	239.95
8237	RG-8U per ft.	.64
8237	100 ft. Roll	59.95
8237	500 ft. Roll	249.95
8214	RG-8U (foam) per ft.	.59
8214	100 ft. Roll	54.95
8214	500 ft. Roll	259.95
8214	1000 ft. Roll	489.95
9913	RG-8U (low loss) 100 ft. Roll	59.95
9913	250 ft. Roll	129.95
9913	500 ft. Roll	239.95
9251	RG-8A (non-contaminating) per ft.	.97
9251	100 ft. Roll	89.95
9251	500 ft. Roll	349.95
8267	RG-213 (non-contaminating) per ft.	.87
8267	100 ft. cut	79.95
8267	500 ft. Roll	349.95
8242	RG-9U (double shielded) per ft.	5.95
8242	100 ft. Roll	369.95

75 OHM COAXIAL CABLE

8241	RG-59U (73 ohm, solid center) per ft.	$ .32

Belden - continued

AES Price

8241	100 ft. Roll	28.95
8241	500 ft. Roll	89.95
8241	1000 ft. Roll	169.95
8238	RG-11 (75 ohm, stranded center) per ft.	.89
8238	100 ft. cut	84.95
8238	500 ft. Roll	319.95
8213	RG-11 (75 ohm, solid, foam) per ft.	.79
8213	100 ft. cut	69.95
8213	500 ft. Roll	269.95

ROTOR CABLE

8484	4-wire; 4-20 gauge per ft.	$ .28
8484	100 ft. cut	24.95
8484	500 ft. Roll	89.95
8484	1000 ft. Roll	169.95
8448	8-wire; 2-18, 6-22 gauge per ft.	.34
8448	100 ft. cut	29.95
8448	500 ft. Roll	129.95
8448	1000 ft. Roll	249.95
9405	8-wire; 2-16, 6-18 gauge per ft.	.74
9405	100 ft. cut	69.95
9405	500 ft. Roll	319.95
9405	1000 ft. Roll	599.95

ANTENNA WIRE

8000	No. 14 stranded ant wire per ft.	$ .23
8000	100 ft. Roll	19.95
8000	1000 ft. Roll	169.95

No. 8 ALUMINUM GROUND WIRE

8018	Multiples of 50 ft. each	$ 13.95
8018	500 ft. Roll	99.95

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

FOAM COAX w/PL-259s ON BOTH ENDS

9349	3' RG-58AU foam	$ 15.95
9350	15' RG-58AU foam	17.95
9352	50' RG-58AU foam	26.95
9354	50' RG-8U foam	49.95
9355	75' RG-8U foam	69.95
9356	100' RG-8U foam	84.95

BELMERIT (BLM)

DM-80	Credit card size multimeter w/case	$ 34.95
DX-355	True RMS+20MHz freq multimeter	74.95
DX-405	10 func/39 range+20MHz freq multimeter	69.95

BENCHER (BEN)

BY-1	Iambic keyer paddle w/black base	$ 99.95
BY-2	Iambic keyer paddle w/chrome base	119.95
BY-3	Iambic keyer paddle, gold plated	279.95
BY-4	Iambic paddle/blk base/gold components	169.95
170-82	Merc paddle ..drop ship; mfgr will engrave call	449.95
ST-1	Single lever keyer paddle, black base	99.95
ST-2	Sgl lever kyr paddle, chrome base	119.95
ST-3	Single lever kyr paddle, gold plated ...D	149.95
RJ-1	Dlx hand key w/navy knob/black base	95.95
RJ-2	Dlx hand key w/navy knob/chrome base	110.95
XW-1	Low voltage DC fuse panel	85.95
XW-20	Fuse kit	6.95
XW-39/XW-30	Crimp terminal kit	4.95
XW-40	Screw terminal kit	5.95
YA-1	1kw low pass filter	75.95
ZA-1A	3.5-30 MHz 1:1 balun	42.95
HWK	Hardware kit; ZA-1A for 2" boom	9.95

BIRD (BIR)

43	Thruline Directional wattmeter, SO-239s Δ	$276.95
4300-400	Peak reading conversion kit ...Δ	131.95
43P	Peak reading directional mtr, SO-239s .Δ	369.95
4431	Wattmeter, variable RF tap, SO-239s Δ	487.95
	Elements (Table 1) 50H-1000H .....Δ,each	92.95
	Elements (Table 1) 2500H, 5000H ...Δ,each	132.95

Bird - continued

AES Price

	Elements (Table 1) 25-1000 MHz ....Δ,each	75.95
	Low-power elements (Table 2) .....Δ,each	100.95

TABLE 1 – Standard Elements

Frequency Bands (MHz)

Power Range	2-30	25-60	50-125	100-250	200-500	400 1000
5 watts	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
50 watts	50H	50A	50B	50C	50D	50E
100 watts	100H	100A	100B	100C	100D	100E
250 watts	250H	250A	250B	250C	250D	250E
500 watts	500H	500A	500B	500C	500D	500E
1000 watts	1000H	1000A	1000B	1000C	1000D	1000E
2500 watts	2500H					
5000 watts	5000H					

TABLE 2 – Low-Power Elements

1 watt	Cat. No.	2.5 watts	Cat. No.
60-80 MHz	060-1	25-30 MHz	025-2
110-160 MHz	110-1	50-60 MHz	050-2
150-250 MHz	150-1	200-300 MHz	200-2
275-450 MHz	275-1	250-450 MHz	250-2
425-850 MHz	425-1	800-1000 MHz	801-2

CC-1	Carrying case; wattmeter/6 elements Δ	48.95
EC-1	Case for 12 elements .....Δ	38.95
25-T-MN	50w dummy load w/type N male ..Δ	100.95
50-T-MN	50w dummy load w/type N male ..Δ	145.95
4273	1.5-35 MHz variable RF sig sampler* Δ	140.95
4273-100	HF sampler; for Bird equip install .Δ	151.95
4275	20-1000MHz variable RF sig sampler* Δ	134.95
	*2 QC connectors required - not included	
4275-100	VHF sampler; for Bird equip install Δ	151.95
4304A	25-1000 MHz 500w wattmeter .....Δ	499.95

QUICK CHANGE CONNECTORS (QC)

4240-050	UHF female (SO-239) .....Δ,each	$ 8.95
4240-062	Type N female .....Δ,each	8.95
4240-125	BNC female .....Δ,each	21.95
4240-160	TNC male .....Δ,each	14.95

Bounty Hunter (BOU)

Fast Tracker	Metal detector/2-tone target ID	$ 89.95
Quick Draw II	Metal detector/full motion	199.95
Sharp Shooter II	Metal detector/LCD readout	249.95
Land Star	Metal detector/3-tone audio discrim	319.95

BUCKMASTER (BUC)

HamCall	CD-ROM ham listings	$ 50.00

BUSHNELL (BUS)

12-1025	10x25 compact Legacy binoculars	$119.95
13-0430	4x30 LiteVision compact binoculars	19.95
13-0721	7x21 compact Falcon binoculars	39.95
13-1226	12x25 camo FRP compact binocs	29.95
13-1250	12x50 wide angle Powerview binocs	59.95
13-2514	8x21 black compact binoculars	24.95
13-3410	7x35 Falcon binoculars	29.95
17-7351	7x35 wide angle armored binoculars	49.95
20-0600	Compact laser rangefinder 600	349.95
78-0040	90mm refractor telescope	439.95
78-0103	1.25" erecting prism	69.95
78-0200	4.5" reflector telescope	349.95
78-6000	6" Dobsonian reflector telescope	299.95
78-8000	8" Dobsonian reflector telescope	399.95
78-9440	60mm refractor telescope	89.95
78-9470	60mm refractor telescope w/zoom	129.95
78-9675	4.5" reflector telescope	229.95
78-0101	1.25" 9mm Kellner eyepc; 0040/6000/8000	29.95
78-0102	1.25" 25mm Kellner eyepiece	29.95
78-0105	1.25" 2x Barlow lens; 0040/0200/6000/8000	39.95
78-0106	DC/batt clock drive; 0040/0200/9675	89.95

BUTTERNUT (BUT)

Skyhawk 3X10	20-15-10m 10el, 24' boom/balun	$969.95

Butternut - continued

	AES Price
HF-6VX 80/40/30/20/15/10m 26' vert ant	329.95
HF-9VX 80/40/30/20/17/15/12/10/6m vert	389.95
A17-12 17 & 12m kit for HF-6VX	60.95
CPK Counterpoise kit	129.95
MPS Mounting post sleeve	12.95
RMK-II Roof mounting kit w/radials	169.95
STR-II Radial kit only	124.95
TBR-160S 160m resonator	129.95
HF-2V 80/40m 32' vertical	249.95
30-MRK 30m resonator for HF-2V	110.95
TBR-160S 160m resonator	129.95
HF-5B 2 el 20/17/15/12/10m butterfly beam	479.95
P-5 1:1 balun Δ	39.95

CES (CES)

4700VP Telephone interconnect †	$169.95
SDI-50 Dlx splx/dplx autopatch/rptr controller	469.95

CQ (CQX)

ARC-2000 2000 Amateur Radio Calendar	$ 9.95
RCC-2000 2000 Radio Classics Calendar	9.95
33 Simple Weekend Projects	15.95
Amateur Radio Almanac	19.95
Building and Using **Baluns** and Ununs	19.95
Buyers Guide	15.95
Contest Video Getting Started in Contesting	19.95
DXing Video Getting Started in DXing	19.95
Ham Sat Video Getting Started Amateur Satellites	19.95
Ham Video Getting Started in Ham Radio	19.95
Lew McCoy on Antennas	15.95
Packet Radio Operator's Manual	15.95
Packet Video Getting Started in Packet Radio	19.95
Quad Antenna Book	15.95
Shortwave Propagation Handbook	19.95
Vertical Antenna Handbook	9.95
VHF How To Book	15.95
VHF Video Getting Started in VHF	19.95
W6SAI HF Antenna Handbook	19.95

CABLE X-PERTS (CAB)

9913FX RG-8U (low loss, flexible) per ft.	$ .87
9913FX **500** ft. Roll	299.95

CASTLE RIDGE (CRO)

SOLID BASE COPPERWELD ANTENNA WIRE

AN-122 100 feet No. 12	$ 24.95
AN-123 150 feet No. 12	34.95
AN-124 250 feet No. 12	49.95
AN-126 500 feet No. 12	89.95
AN-128 1000 feet No. 12	149.95
AN-142 100 feet No. 14	19.95
AN-143 150 feet No. 14	24.95
AN-144 250 feet No. 14	34.95
AN-146 500 feet No. 14	59.95
AN-148 1000 feet No. 14	104.95
AN-181 250 feet No. 18	14.95
AN-182 500 feet No. 18	24.95

CELESTRON (CEL)

11015 Celestar 8 telescope	1099.95
11031 Nexstar 5 telescope	1199.95
93593 Tripod for Nexstar 5	199.95
11051 G-5 w/motor drive telescope	749.95
21072 Firstscope 80 EQ-WA refractor telescope	299.95
31031 Firstscope 76 EQ reflector telescope	159.95
31034 Tabletop 76 reflector telescope	99.95
31052 Firstscope 114 Premium reflector telescope	349.95
31056 C150-HD reflector telescope	499.95

LENSES (not for 11031 or 31034)

93213 1.25" 2x economy Barlow lens D	$ 24.95
93340 1.25" 10mm ocular Plossl lens D	59.95
93342 1.25" 17mm ocular Plossl lens D	59.95
93344 1.25" 26mm ocular Plossl lens D	59.95
93507 1.25" 2x deluxe Barlow lens	59.95

Celestron - continued

	AES Price
51630 Star pointer finderscope	30.95
93590 Red Astro Lite flashlight	5.95
93700 CD-ROM "The Sky for Celestron"	19.95
93720-40 Planisphere & planet finder	9.95
93722 Sky Map	19.95
94119-A 1.25" moon filter	16.95

Sorry, no exports on Celestron products.

CENTAUR (CEN)

B11W10-50 1:1 3kw PEP balun for dipole	$ 49.95
B11Y10-50 1:1 3kw PEP balun for yagi	49.95
B41Y10-50 4:1 3kw PEP balun for yagi	64.95
B41LW10-50 4:1 ladder line to coax balun	64.95

Channel Master (CHA)

9515 HD TV/small VHF/UHF beam rotor/3-wire	$129.95
9521 Prog light duty ant rotor/IR rem cont/3-wire	99.95

CHEROKEE (CHR)

AH-50 5w 6m FM HT w/nicad battery D	$119.95
AH-50SF 5w 6m FM HT/batt/select offset D	139.95
BC-09 6 AA cell battery holder Δ	12.95
BC-12 8 AA cell battery holder Δ	17.95
CC-27 Leatherette case Δ	12.95
DA-27 12v slide-on adapt; BC-09/NP-126 Δ	13.95
DW-12 Wall charger Δ	7.95
EX-01 Speaker/mic Δ	29.95
MA-27 Mobile-com cig/ext ant adapter Δ	44.95
NP-126 12v nicad battery Δ	69.95
SA-5 Extended super flex 6m antenna Δ	19.95
CBS-1000 SSB/AM Base CB D	229.95

CLOCKS

BMI **972A** 12" 12-hour wall clock	$ 28.95
BMI **972AD** 14" 12/24-hour wall clock	32.95
BMI **973A** 12" 24-hour wall clock	49.95
MFJ **105C** 24-hour quartz wall clock	19.95
MFJ **107B** 24-hour digital clock	9.95
MFJ **108B** 24/12-hour dual disp digital clock	19.95
MFJ **112** Deluxe world map clock D	24.95
MFJ **112B** Deluxe world map clock	24.95
MFJ **114B** Giant LED desk/wall 12/24-hr clock	59.95
MFJ **115** DX'er 24-hr analog world wall clock	24.95
MFJ **116** 24/12-hr LED clock/10 min timer	14.95
MFJ **116DC** 12/24-hour 12vdc LED clock	19.95
MFJ **118** Giant 24/12 hour LCD clock	24.95
MFJ **119** Giant 24/12 hr LCD/in temp clock D	39.95
MFJ **119B** Giant 24/12 hour LCD/in temp clock	49.95
MFJ **120** Monster atomic clock/temperature/humdity	69.95
MFJ **123** Eternity solar atomic clock	79.95
MFJ **125** Calendar 24-hour analog wall clock	29.95
MFJ **126** Multi-color 12-hr quartz wall/24-hr trim	24.95
MFJ **128** 12/24 hr analog atomic wall clock	59.95
MFJ **129** 24" 12/24 hr analog wall clock	69.95
MFJ **132AT** 12-hour LCD atomic clock	34.95
MFJ **134AT** 24-hour LCD atomic clock	34.95
MFJ **152** Thermo clock; in/out temp/12/24-hr D	24.95
MFJ **152B** Thermo clock; in/out temp/12/24-hr	24.95
MFJ **181** 24/12-hour world map wristwatch	39.95
ORE **BA-812E** The weather clock	49.95
ORE **JM-818WFA** Widescreen Exactset WX clock	89.95
ORE **RM-116E** Exactset radio controlled clock	39.95

COAX SEAL (UNV)

104 ½" x 60" coax seal	$ 2.95

COBRA (COB)

10 SOS Kit AM Mobile CB w/mag mt ant D	$ 39.95
10 Ultra AT AM Mobile CB/magnet mt ant D	39.95
25LTD ST Sound Tracker AM Mobile CB D	99.95
25WX ST Sound Tracker AM Mobile CB w/WX D	99.95
29LTD ST Sound Tracker AM Mobile CB D	109.95
29WX ST Sound Tracker AM Mob CB w/WX D	109.95
HH-35 AM portable CB D	49.95
HH-36 ST Sound Tracker handheld CB D	59.95
HH-40 5w 40 ch CB walkie talkie D	59.95

Cobra - continued

	AES Price
HH-45WX ST Sound Tracker handheld CB/WX D	99.95
HH-70 AM remote CB D	79.95
18WX ST Sound Tracker AM Mobile CB w/WX	69.95
19DX II AM Mobile CB	49.95
19LTD II AM Mobile CB	59.95
19 Ultra II AM Mobile CB	49.95
21LTD ST Sound Tracker AM Mobile CB	79.95
25LTD (25LTD Classic) AM Mobile CB	89.95
25NW ST Night Watch Sound Tracker AM Mobile CB	99.95
25WXNW ST Night Watch Sound Tracker AM Mob CB/WX	109.95
29LTD (29LTD Classic) AM Mobile CB	99.95
29NW ST Night Watch Sound Tracker AM Mobile CB	119.95
29WXNW ST Night Watch Sound Tracker AM Mob CB/WX	129.95
75WX ST Sound Tracker AM Mobile CB w/WX	99.95
HH-37 ST Sound Tracker handheld CB	59.95
HH-38WX ST Sound Tracker handheld CB w/WX	79.95
148NW ST Night Watch Sound Tracker SB/AM Mob CB	179.95
AT-60 Trunk lip/roof mt CB antenna D	14.95
AT-70 Magnet mt CB antenna	24.95
CA-72 Amplified CB desk microphone D	49.95
CA-77 Noise canx/amplified mobile mic	24.95
CP-912 900MHz dig sp spec cordless ph D	69.95
FRS-200 Family radio service handheld D	59.95

COMET (CMT)

MOBILE ANTENNAS

B-10 2m/440 2.15db 12" cell look-alike ant	$ 39.95
B-10NMO 2m/440 2.15db 12" cell look-alike NMO	39.95
B-20 2m/440 2.15/5db 30" cell look-alike ant	49.95
B-20NMO 2m/440 2.15db/5db 30" cell look NMO	49.95
CA-2X4SR 2m/440 3.8/6.2db 40" mob ant	64.95
CA-HV 40/15/10/6/2m 5' 10" mobile ant	129.95
CA-UHV* 40/15/10/6/2m/440 mobile ant	139.95
***$20 Comet rebate; CA-UHV/IC-706MkIIG thru 6/30/00**	
L-14 20m loading coil for CA-HV/UHV	36.95
L-18 17m loading coil for CA-HV/UHV	29.95
HA-4S 40/15/12/10m 4' 5" mobile ant D	149.95
L-14HS 20m loading coil for HA-4S	39.95
L-18HS 17m loading coil for HA-4S	39.95
HA-035 80m 45" mobile antenna	82.95
HA-050 6m 33" ¼ wave mobile antenna	72.95
HP-32 2m/440 3/5.5db 34" 350/250w ant	89.95
M-24B 2m/440 1.7/4.1db mag mt ant w/BNC	39.95
M-24M 2m/440 1.7/4.1db mag ant w/PL259	39.95
MSG-1000C 2m/440 2.15/5.5db 39" mobile	62.95
MSG-1100C 2m/440 3.5/6db 43" mobile ant	72.95
QE-07 40m 50" mobile antenna D	59.95
QE-14 20m 49" mobile antenna	79.95
QE-21 15m 49" mobile antenna	79.95
QE-28 10m 46" mobile antenna	79.95
OP-07 40m optional element for QE ant	39.95
OP-14 20m optional element for QE ant	39.95
OP-21 15m optional element for QE ant D	29.95
OP-28 10m optional element for QE ant	39.95
QE-5 2m/440 2.15/5.5db 38" quick release D	39.95
R-2000 900MHz 5.1db 19" type N mob ant	42.95
SBB-1 2m/440 1.5/2.15db 16" flex mobile	39.95
SBB-1NMO 2m/440 1.5/2.15db 16" flex NMO	39.95
SBB-2 2m/440 2.15/3.8db 18" black mobile	39.95
SBB-2NMO 2m/440 2.15/3.8db 18" blk NMO	39.95
SBB-5 2m/440 3/5.5db 38" black mobile ant	54.95
SBB-5NMO 2m/440 3/5.5db 38" black NMO	54.95
SBB-7 2m/440 4.5/7.2db 4' 7" black mob ant	74.95
SBB-7NMO 2m/440 4.5/7.2db 4' 7" blk NMO	74.95
SB-14 6m/2m/440 43" chrome mobile ant	64.95
SB-15 6m/2m/440 2.15/4.5/7.2db 5' chr mob	79.95
SBB-25 2m 4.1db black mobile antenna	44.95
SBB-25NMO 2m 4.1db black NMO mob ant	44.95
SB-44 440 5db 29" mobile antenna D	39.95
SBB-94 2m/440/1.2 black 24" N antenna	69.95
SB-97 2m/440/1.2 3/6.8/9.6db 39" type N	79.95
SB-123 1.2GHz 7.2db 24" type N mobile ant	54.95
SBB-224 2m/220/440 2.15/3.2/5.5 blk mob	74.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Comet - continued

	AES Price
SBB-224NMO 2m/220/440 2.15/3.2/5.5 blk NMO	74.95
SF-245 2.4 GHz 7db 18" fg type N ant	61.95
Z-750 2m/440 2.1/5.5db 39" theft resistant	62.95
Z-780 2m/440 4.5/7.2db 5' theft resistant	82.95

MOBILE MOUNTS

3D4M Mobile mt, 13' coax w/UHF connectors	$ 24.95
3D4N Mobile mt, 13' coax w/type N	28.95
3D5M Mobile mt, 16.5' coax w/UHF connectors	27.95
5D4N Roof mount, 13' coax w/type N	31.95
AD-10N NMO mount to female N adapter	17.95
AD-15M NMO mount to SO-239 adapter	17.95
AD-25M SO-239 to NMO mount adapter	17.95
CG-4M RS-2 gutter mount w/13.5' coax ....D	19.95
CK-3M Dlx 2-step 10' cable w/UHF connectors	33.95
CK-3M5 Dlx 2-step 16.5' cable w/UHF connects	39.95
CK-5N Dlx cable assembly w/type N	47.95
CM-5M Hvy duty mag mt, coax, max 4' ant	24.95
CQ-5M Dlx black QD trunk lip mt w/17' coax	66.95
CQ-5N Dlx black QD tnk lip mt/17' coax/N	69.95
CR-5M Std coax assy, 16.5' coax, UHF conn	19.95
CT-5M Trunk lip mount w/16.5' coax	39.95
GR-5M Dlx tnk lip mt w/ coax; matches SB	67.95
GR-5N Dlx N tnk lip mt w/ coax; matches SB	69.95
MK-30H Motorized tnk lip/hatch/van door mt	124.95
RS-2 Small gutter mount	22.95
RS-9 Trunk lip mount, no coax	11.95
RS-520 Mini heavy duty trunk/hatch mount	28.95
RS-560C Luggage rack mount, no coax	35.95
RS-720 Hatch/rear door/tnk multi-adj mt	28.95
RS-720NMO Hch/rear door/tnk multi-adj NMO mt	28.95
RS-730 HD rear van/SUV door/tnk lip mt, no coax	29.95
WS-1M Window clip mt w/UHF connectors	66.95

BASE STATION ANTENNAS

CA-712EF 440 9db 10' 5" base antenna	$109.95
CA-ABC22A 2m 6,5db 9' 5" base/rptr ant	69.95
CA-ABC23 2m 7.8 db 13' 4" base/rptr ant	99.95
CA-F72GF 440-470 6db 3' 6" tunable ant	109.95
CA-Super22 220 6.6db 5' 11" base ant	149.95
CA-52HB4 6m 4 el 10.4db beam	119.95
CX-333 2m/220/440 6.5/7.8/9db 10.25' ant	179.95
CYA-240 2m/440 9.5/11.6 3/5el 5.25' bm yagi	99.95
240-KT Stacking harness kit for CYA-240	69.95
CYA-1216E 1.2GHz 16el 16.6db 4' 5" bm N beam	139.95
CYA-2412 2.4GHz 12el 15.5db 2' 6" bm N beam	179.95
DS-15 6m/2m/440/900/1.2 discone antenna	99.95
GH-50 6m 2.15db 7' 10" fg base antenna	99.95
GP-3 2m/440 4.5/7.2db 5' 11" base/rptr ant	99.95
GP-6 2m/440 6.5/9db 10' 2" base/rptr ant	149.95
GP-9 2m/440 8.5/11.9db 17' 8" base/rptr	179.95
GP-9N 2m/440 8.5/11.9db 17' 8" N base/rptr	179.95
GP-15 6/2m/440 3/6.2/8.6db 7' 11" base	154.95
GP-21/CA-1221S 1.2 14.8db 8' N base/rptr	149.95
GP-24 2.4GHz 12.4db 5' 11" N base/rptr	199.95
GP-24S 2.4GHz 9.9db 3' 7" N base/rptr	139.95
GP-93 2m/440/1.2 4.5/7.2/10db 5' 7" type N	129.95
GP-98 2m/440/1.2 6.5/9/13.5db 9' 8" N ant	189.95
KP-20 900 MHz 9.2db 7' 4" type N base/rptr	112.95
PYA-913 900MHz 13el 15.8db 4' 8" type N beam	159.95
X-2427 2.4GHz 27el 21db 5' boom N beam	239.95

DUPLEXERS AND TRIPLEXERS

CF-142 1.3-150/200-480 600/400w UHF/leads	$ 69.95
CF-360A 1.3-30/50-470 600w UHF w/leads	69.95
CF-360B 1.3-30/50-470 600w UHF/common lead	69.95
CF-413A 440/1.2 500/200w N w/leads .....D	49.95
CF-413B 440/1.2 500/200w N/UHF/N leads D	49.95
CF-416A 2m/440 800/500w UHF w/leads	46.95
CF-416C 2m/440 800/500w N/UHF/N leads	49.95
CF-416W 1.3-250/400-1400 400/200w N/leads	69.95
CF-530 1.3-90/125-470 600w UHF w/leads	69.95
CF-706 1.3-56/75-320 350w UHF w/leads .D	69.95
CF-706A 1.3-56/75-470 350w UHF w/leads	69.95
CF-4130A 440/1.2 500/200w N, no leads ...D	49.95
CF-4160I 2m/440 800/500w UHF/UHF/N, no leads	45.95

Comet - continued

	AES Price
CF-4160J 2m/440 800/500w SO239, no leads	53.95
CF-4160K 2m/440 800/500w all UHF, no leads	45.95
CFX-324A 2m/220/440 600w UHF w/leads	88.95
CFX-324B 2m/220/440 600w UHF, no leads	85.95
CFX-431B 2m/440/900-1.2 N/UHF/UHF/N, leads D	59.95
CFX-514 HF/2m/440 800/800/500w UHF w/leads	79.95
CFX-514J HF/2m/440 800/800/500w UHF, no leads	74.95
CFX-514N HF/2m/440 800/800/500w UHF/N w/leads	79.95
CFX-4310B 2m/440/900-1.2 N/UHF/N/N, no leads D	49.95
CFX-4310C 2m/440/1.2; Kenwood TM-741A/941A	79.95
CFX-5140 HF/6m/2m/440 800/800/500w UHF, no leads	74.95

HT AND HAND-HELD SCANNER ANTENNAS

AS-25 2m/440 1" SMA antenna	$ 19.95
BNC-24 2m/440 17" 2.15/5.3db BNC whip	22.95
CH-32 2m/440 1.75" BNC Miracle Baby ant	29.95
CH-75 2m/440 0/3.2db 14.75" BNC ant	25.95
CY-1205BNC 1.2GHz 11db 7" BNC beam ...D	39.95
MH-209 2m/440 3" BNC duck	23.95
MH-209SMA 2m/440 3" SMA duck	23.95
MH-510 6m/2m/440 20.75" SMA duck	37.95
SH-55 2m/440 1.5/3.2db 15" BNC ant	33.95
SH-95 2m/440/1.2 1.5/2.15/5.5db BNC ant	34.95
SMA-3 2m/440 1.2/1.7db 9.75" SMA ant	39.95
SMA-24 2m/440 17" 2.15/5.3db SMA whip	22.95
SMA-501 2m/440/900 1.5" SMA antenna	29.95
SMA-503 2m/440 8.75" SMA antenna	29.95
SMA-703 2m/440/1.2GHz 6.5" SMA ant	31.95

SWR/POWER METERS & MINIMETERS

CM-120 1240-1300 MHz type N minimeter	$ 99.95
CM-690 1.9-60 MHz 20/150w minimeter	79.95
CM-720 140-150/430-450 MHz minimeter	79.95
CM-720N 140-150/430-450 type N minimeter	84.95
CM-903 900-920 MHz type N minimeter	99.95
CMX-2 1.8-200MHz 200w SWR/pwr/rem head D	129.95
EKS-3 10' rem head extension cbl; CMX ..D	14.95

ACCESSORIES

CS-290P 1500MHz 150w N lightning protect D	$ 19.95
CSP-30 Mini speaker w/magnet mt .....D	14.95
CSW-20N 0-1300MHz N coax switch .....D	39.95
HM-P2F Mini spkr/mic; Ali/Ico/Sta/Yae .....D	14.95
HM-P2K Mini spkr/mic for Kenwood .....D	14.95
HM-P4F Mini "HT" spkr/mic; Ali/Ico/Sta/etc D	14.95
HM-P4K Mini "HT" spkr/mic for Kenwood ....D	14.95

COMM SPEC (COM)

SS-64 64-tone mini prog CTCSS encoder	$ 28.95
TE-32 32-tone CTCSS prog encoder box	49.95
TE-64 64-tone CTCSS/burst switch enc box	79.95
TS-64DS 64-tone CTCSS prog encoder/decoder	57.95
DTD-1 DTMF decoder	49.95
ID-8 Automatic morse station identifier	69.95

CONNECTORS

AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050 Male coax plug (PL-259)	$ 1.95
83-1SP Silver plated coax plug (PL-259)	2.95
Van Gorden (**VAN**) **silver plated** teflon PL-259	2.99
83-185 Reducer for RG-58 (UG-175)	.95
83-168 Reducer; RG-59/RG-8X (UG-176)	.95
83-1AP Right angle adaptor (UG-646)	5.95
83-1J Double female adaptor (PL-258)	3.95
83-1R Female chassis mt socket (SO-239)	2.95
83-1H Hood; in-line use w/83-1R (UG-106)	4.95
83-1T T-connector adaptor (M-358)	9.95
83-877 Double male adaptor	10.95
83-878 Single hole ⅝" chassis socket	2.95
31-002 BNC male connector for RG-58	3.95
31-012 BNC male connector; RG-59/RG-8X	4.95
31-221 BNC female chassis socket	2.95
82-24 Type N female chassis mt socket	4.95
82-61 Type N male connector for RG-8	7.95
82-64 Type N right angle adaptor	20.95
82-202-1006 Type N male; 8214/9913/9913F	6.95

Connectors - continued

	AES Price
82-209 Type N female in-line for RG-8	6.95
34025 Type N male connector for RG-58	6.95

AMPHENOL COAX ADAPTORS (AMP)

2900 SO-239 to BNC male adaptor	$ 9.95
4400 SO-239 to type N male adaptor	13.95
34125 Type N female - PL-259 adapt	20.95
31-28 BNC female to PL-259 adaptor	11.95
(HOU) **SMA-872** SO-239 to SMA plug adaptor	5.95

AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

19-1289 8-pin female mic plug	$ 4.95
25-7351 Chassis mt SO-239 double female	3.95
25-7365 BNC female to SO-239	3.95
25-7420 BNC male to SO-239	2.95
26-8010 Type N double female	3.95
26-8011 Type N chassis mount	2.95
26-8015 N male to SO-239	4.95
26-8016 BNC female to N male	4.95
26-8017 BNC male to N female	4.95
26-8027 N male for RG-8X	4.95
27-8120 BNC female to PL-259	2.95
27-8130 BNC double male	3.95
27-8140 BNC T; 2 female, 1 male	2.95
27-8142 BNC T, 3 male .....Δ	.69
27-8450 BNC chassis mt, 4 screw holes	2.95
27-8460 ⅜" hole BNC chassis mt	1.95
27-8470 Dual BNC chassis mount	3.95
29-3855 BNC female to SMA male	3.95
29-4140 SO-239 to mini PL-259	2.95

CONNECTORS UNLIMITED (CON)

306 SO-239 to BNC male adaptor .....Δ	$ .99
1721 7-pin DIN plug .....Δ	.29

Switchcraft 1/4 " Plugs/Solder Terminals (SWI)

220 2-cond, plastic, screw terms, rt ang plug D	$ 2.49
237 3-cond, plastic handle, rt angle plug ..Δ	.49
250 2-conductor, plastic handle .....Δ	.99
260 3-conductor w/screw terminals .....Δ	2.95
267 3-conductor, plastic handle .....Δ	1.49
280 2-conductor, metal handle	4.95
297 3-conductor, metal handle	6.95

SWITCHCRAFT PHONO-TYPE CONNECTORS (SWI)

3501MC Phono plug with cable clamps .....Δ	$ .29
3502 Shielded phono plug	2.95
3507 RF-type phono plug .....Δ	1.95

VANCO MICROPHONE CONNECTORS (VCO)

CBC-2 2-pin female mic plug .....Δ	$ 1.95
CBC-3 3-pin female mic plug .....Δ	1.95
CBC-4 4-pin female mic plug	4.95
CBC-4P Panel mt 4-pin male .....Δ	1.49
CBC-5 5-pin female mic plug .....Δ	1.95
CBC-5P Panel mt 5-pin male .....Δ	1.49
CBC-6 6-pin female mic plug	4.95
CBC-6P Panel mt 6-pin male .....Δ	1.69
(AIM) **19-1289** 8-pin female mic plug	4.95
CBC-8P Panel mt 8-pin male	5.95

KENWOOD DIN PLUGS (KEN)

7-pin DIN plug	$ 4.95
8-pin DIN plug	6.95
13-pin DIN plug	9.95

VANCO MINI PHONE & CIG PLUGS (VCO)

P-25 2.5mm sub-miniature phone plug .....Δ	$ .49
P-35 3.5mm miniature phone plug	.99
P-12R 2-contact cigarette plug	1.95
P-12V Cig lighter plug w/leads	1.95
P-212 2-outlet cigarette plug adapter	4.95
P-212B Dual cigarette lighter socket adapter	8.95

Connect Systems (CSY)

CS-700 Simplex interconnect .....D	$169.95
CS-800 Full duplex patch & repeater controller	359.95
CS-900 Simplex interconnect	359.95
CD-2 DTMF/CTCSS/DCS decoder unit/RS-232	249.95
CD-2P PC application program for CD-2	99.95

Connect Sys - continued AES Price

LT-2P PC application program for LT-2 .....D 19.95

COUGAR (CUG)

H-83 AM/FM/SW mini receiver .....Δ $ 24.95

COURIER (COU)

M-54 5w 4ch VHF hand-held/batt/cgr/151.625 $199.95
DIC-V 3-hour quick charger for M-54 .....Δ 19.95
M-510 5w 10ch synth VHF FM hand-held 269.95
MU-510 5w 10ch synth UHF FM hand-held ... 299.95
CCK-510 Cloning cable for M-510/MU-510 18.95
CPK-510 Prog kit for M-510/MU-510 ..... 199.95

COYNE (COY)

MacHam General .....Δ $ 4.95
MacHam Advanced .....Δ 9.95
MacHam Radio Morse Code training soft ....Δ 9.95

CROSS DEVICE (CRS)

STUF Coax connector waterproofing filler ..... $ 4.95

CUSHCRAFT (CUS)

At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft.

VHF/UHF FM BEAMS* (Vertical polarization)

A148-3S 2m, 3 el wideband beam..... $ 52.95
A148-10S 2m, 10 el wideband beam 89.95
A148-20S 2 A148-10S vert stacked 199.95
A449-6S 440 MHz, 6 el, 3' boom, 10 db 50.95
A449-11S 440 MHz, 11 el, 4.5' boom, 13 db . 69.95
*Antennas can be mounted vertically or horizontally!

2M/440 FM BEAMS* (Vertical polarization)

A270-6S 2m/440, 3/3 el, 2.8' boom, 7.8 db .. $ 69.95
A270-10S 2m/440, 5/5 el, 6.17' boom, 10 db 94.95
*Antennas can be mounted vertically or horizontally!

TRI-BAND 6M/2M/440 BEAM

A6270-13S 6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db $169.95

FM RINGOS - 1/2 Wave Verticals - 3.75 db

AR-10 10m FM Ringo, 1000w ..... $ 79.95
AR-6 6m FM, 1000w 69.95
AR-2 2m FM, 1000w 49.95
AR-450 440 MHz FM, 500w 36.95

RINGO RANGERS - FM Verticals - 6 db

ARX-2 2m FM Ringo Ranger ..... $ 59.95
ARX-2B 2m FM Ringo Ranger II, 1000w 69.95
ARX-220B 220 FM Ringo Ranger II, 500w 69.95
ARX-450B 440 FM Ringo Ranger II, 500w 69.95

DUAL-BAND 2M/440 FM VERTICALS

AR-270 2m/440 MHz FM, 250w, 3.7/5.5db ... $ 84.95
AR-270B 2m/440 MHz FM base ant 109.95

TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T 2m 20el 10.8'bm 11.1db twist $119.95
719B 432 19 el beam 129.95
729B 432 29 el beam 199.95

BOOMER ANTENNAS

617-6B 6m Boomer, 6 el, 34' boom, 14 db ... $369.95
124WB 2m Boomer, 4 el, 4' boom, 10.2 db ... 74.95
13B2 2m Boomer, 13 el, 15' boom, 15.8 db .. 129.95
17B2 2m Boomer, 17 el, 31' boom, 18 db 219.95
26B2 2 13B2s vertically stacked 339.95
224WB 220 Boomer, 4 el, 3' boom, 10.2db ... 59.95
225WB 220 wideband Boom, 15el, 10'bm, 15.5db 139.95

BOOMER STACKING KITS*

617-SK Harness, pwr divider; 2 6176Bs .....D $ 39.95
22-SK Harness, power divider; 2 13B2s 99.95
22N-SK Harness, pwr divider; 2 17B2s 149.95
26B2-VPK Vertical polar kit; 2 13B2s 159.95
PD-2 Power divider for 2 13B2s 55.95
PD-4 Power divider for 4 13B2s 64.95
*Prices are for stacking kits only

VHF/UHF BEAMS* (Horizontal polarization)

A50-3S 6m, 3 el, 6' boom, 8 db, stainless hdwre $ 99.95

Cushcraft - continued AES Price

A50-5S 6m, 5 el, 12' boom, 10 db, stainless hdwre 149.95
A50-6S 6m, 6 el, 20' boom, 11db, stainless hdwre 249.95
A148-10S 2m, 10 el wideband beam 89.95
A430-11S 430 MHz, 11 el, 4' boom, 13 db 69.95
*Antennas can be mounted vertically or horizontally!

MOBILE ANTENNAS

CG-144A 2m ⅜" mt Gold series coil/whip only D $ 59.95
CS-28M 10m magnet mt antenna 64.95
CS-50M 6m magnet mt 3 db antenna 64.95
CS-147M 2m magnet mt 3 db antenna 64.95
CS-147A 2m coil & whip only 46.95
CS-220 220 ¾" hole mt 3 db antenna .....D 19.95
CS-220M 220 magnet mt 3 db antenna 64.95
CS-220T 220 trunk lip mt 3 db ant .....D 19.95
CS-450 440 ¾" hole mt 5 db antenna .....D 24.95
CS-450M 440 magnet mt 5 db antenna 64.95
CS-450T 440 trunk lip mt 5 db ant .....D 34.95
CS-450A 440 coil & whip only .....D 14.95

DUAL-BAND 2M/440 MOBILE ANTENNAS

CS-270M 2m/440 3.7/6 db magnet mt ant .. $ 84.95
CS-270A 2m/440 coil & whip only 59.95

MOUNTS ONLY FOR MOBILE ANTENNAS

CS-MG Magnetic mount ..... $ 30.95
CS-MGN Magnetic mount w/N connector 35.95
CS-TL Trunk lip mount 30.95

MULTIBAND VERTICAL ANTENNAS

R-6000 20/17/15/12/10/6m vertical $269.95
R-80 80m kit for R-7000 only .....D 129.95
R-8 40/30/20/17/15/12/10/6m 28.5' vert 399.95

ROTATABLE DIPOLES

D-3 20/15/10m World Ranger dipole $199.95
D-3W 30/17/12m rotatable dipole 199.95
D-4 40/20/15/10m World Ranger dipole 289.95
D-40 40m World Ranger dipole 249.95

BIG THUNDER TRI-BAND BEAMS

X-9 20/15/10m, 9 el, 28' boom, 13/14db 869.95
X-940 40m 1 element add-on kit for X-9 ... 269.95
X-7 20/15/10m, 7 el, 18' boom, 12.5/13db .. 599.95
X-740 40m add-on kit for X-7 ..... 269.95

BIG THUNDER MONOBAND BEAMS

20-4CD 20m, 4 el, 32' boom, 10 db .....D $399.95
XM-240 40m, 2 el, 23' boom, 7 db 599.95
XM-520 20m, 5 el, 35' boom, 9.3db 649.95
XM-515 15m, 5 el, 24' boom, 9.3db 399.95
XM-510 10m, 5 el, 19' boom, 9.3db 299.95
TEN-3 10m, 3 el, 8' boom, 8 db 169.95

MULTIBAND BEAM ANTENNAS

A-3S 20/15/10m, 3el, 14'bm, 8db, stainless hdwr $369.95
A-743 40m or 10 MHz add-on kit; A-3/A-3S 139.95
A-4S 20/15/10m, 4el, 18'bm, 9db, stainless hdwre 449.95
A-744 40m or 10 MHz add-on kit; A-4/A-4S 139.95
A-3WS 17 & 12m, 3 el, 14' boom, 8 db 299.95
A-103 30m add-on kit for A-3WS 139.95
ASL-2010 13.5-32MHz 8el 18' bm 6.4db LP . 619.95
MA-5B 20/17/15/12/10m 7.3' boom mini beam 269.95

LIGHTNING ARRESTORS

LAC-4 200w SO-239 gas tube arrestor ..... $ 40.95
LAC-4H 2kw SO-239 gas tube arrestor 45.95
LAC-4N 200w type N gas tube arrestor 52.95
LAC-4NH 2kw type N gas tube arrestor 56.95
LC-2 Extra 200w cartridge for LAC-4/4N 17.95
LC-2KW Extra 2kw cartridge for LAC-4H/4NH 20.95
5VB Vinyl connector boots .....pack of 5 15.95

CUTTING EDGE (CUT)

HMP WorldPack backpack; mini HF Xcvr ..... $ 57.95
HPP-7A 7AH gel-cell w/overnight charger . 63.95
HP-7AF 7AH gel-cell w/2.5 hr fast charger 119.95
PPMMDC Multi-tip/volt reg DC-DC adapt 22.95
PPSC-5 5.5w roll-up solar cell 129.95
PPSC-32 32w roll-up solar cell 394.95
PPSCA Solar cell cigarette adapter 10.95

Cutting Edge - continued AES Price

PPVT Digital voltage tester .....D 14.95

DCI (DCI)

145-2H 2m 144-146MHz 200w bandpass filter $ 89.95
146-4H 2m 144-148MHz 200w bandpass filter 89.95
223.5-3H 222-225MHz 200w bandpass filter 89.95
2m/220 models w/N connectors add $10 special order
435-10C 430-440MHz 200w N bandpass filt 109.95
445-10C 440-450MHz 200w N bandpass filt 109.95

DC SALES (DCS)

Tenna Hitch Antenna mount for trailer hitch $ 35.95

DAIWA (DAI)

CN-101 1.8-150 5/150/1.5kw SWR/pwr meter/light $ 99.95
CN-103M 140-525 20/200w SWR/power meter 99.95
CN-410M 3.5-150 15/150w mobile meter 124.95
CN-460M 140-450 15/150w mobile meter 124.95
CN-801H 1.8-200 20/200/2kw SWR/pwr meter 149.95
CN-801V 140-525 20/200w SWR/power meter . 154.95
CS-201 2-position 600 MHz coax switch 26.95
CS-401 4-position 800 MHz coax switch 149.95

DAVIS (DAV)

7400 Perception II indoor WX unit $129.95
7415 Wizard II-S weather station .....D 99.95
7425 Wizard III weather station 169.95
7440 Monitor II weather station 349.95
7852 Rain Collector II, 0.01" 69.95
7977 Electronic rain counter, 0.01" .....D 9.95
7859 External temp/humd Sensor II; 7440 109.95
7862 Weatherlink Win interface/software ... 139.95
7866 Weatherlink Mac interface/software .. 139.95
7870 Modem adapter for 7862/7866 ..... 7.95
7867 Weatherlink Mac to Win conv kit 50.95
7868 Weatherlink Win to Mac conv kit 50.95
7873 Cig lighter power cord 9.95
7876-040 4-conductor 40' extension cable 18.95
7878-040 6-conductor 40' extension cable 22.95
7880 8-conductor 25' junction box cable .. 15.95
7881 8-conductor 50' junction box cable .. 25.95
7882 8-conductor 100' junction box cable 45.95
7890 Mast mount for anemometer 16.95
0131 Weather forecasting quick reference card 9.95
0271 Turbo Meter handheld dig wind indicator 99.95
0281 Wind Wizard handheld wind indicator .. 46.95

DELORME (DEL)

Topo USA US topographical maps CD-ROM .. $ 99.95
Earthmate Laptop PC GPS/Street Atlas soft . 159.95

DIAMOND (DIA)

SWR/POWER METERS

SX-20C HF/6m/2m 30/300w meter ..... $ 89.95
SX-40C 144-470 (220 w/correction) 15/150w 79.95
SX-100 1.6-60 MHz 30/300/3kw PEP meter .. 134.95
SX-200 1.8-200 MHz 5/20/200w PEP meter .. 94.95
SX-400 140-525 MHz 5/20/200w PEP meter . 114.95
SX-600 Dual band 1.8-160 /140-525 200w PEP mtr . 169.95
SX-1000 1.8-160/430-1300MHz 200w PEP meter . 214.95

HT & HANDHELD SCANNER ANTENNAS

RH-3 2m/440 1.75" BNC mini HT duck ..... $ 24.95
RH-77CA 2m/440 15" BNC rubber gain ant .. 24.95
RH-205 2m ⅝ wave telescopic HT antenna ... 24.95
RH-519 2m/440 8.3" flexible BNC whip 27.95
RH-707 2m/440 8¼" tiltable BNC whip 33.95
RH-951S 2m/440/1.2GHz 15" BNC slim duck 44.95
SRH-519 2m/440 8.3" flexible SMA whip 32.95
SRH-805 2m/440/1.2GHz 1.75" SMA ant 27.95
SRH-815 2m/440/1.2GHz 6" flex SMA whip .. 36.95

MONO-BAND MOBILE ANTENNAS

NR-2C 2m 4.1db 55.5" mobile antenna ..... $ 39.95
NR-124 1.2GHz 8.4db 25" type N mobile ant 59.95
NR-140A 220 4db 37" mobile antenna .....D 39.95
SG-2000HD 2m 5.2db 62.6" 250w mob ant .. 89.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Diamond - continued

AES Price

SG-6000NMO 52-54 2.15db 39" NMO mob ... 64.95

DUAL-BAND MOBILE ANTENNAS

CR-214S 2m/220 2.1/3.4db 37" mobile ant . $ 58.95
CR-224A 2m/220 5/6db 69" mobile antenna 99.95
NR-72BNMO Black 2m/440 2.15db 14" NMO 41.95
NR-73BNMO Blk 2m/440 2.15/5.5db 34" NMO 57.95
NR-770HA 2m/440 3/5.5db 40" mobile ant .. 56.95
NR-770HB Black 2m/440 3/5.5db 40" mobile 59.95
NR-770HNMO 2m/440 3/5.5db 40" NMO mobile 56.95
NR-770HBNMO Blk 2m/440 3/5.5db 40" NMO 59.95
NR-770RA 2m/440 3/5.5db 39" mobile ant .. 51.95
NR-770SA 2m/440 2.15db 16.5" mob ant ..D 39.95
NR-790A 2m/440 4.5/7.2db 57" mob ant ...D 79.95
SG-7000A 2m/440 2.15/3.8db 19" mobile 69.95
SG-7200NMO 2m/440 3.2/5.7db 38" NMO ...Δ 86.95
SG-7500A 2m/440 3.5/6db 41" mobile ant ... 79.95
SG-7500NMO 2m/440 3.5/6db 41" NMO ant .. 79.95
SG-7900A 2m/440 5/7.6db 62" mobile ant ... 114.95

TRI-BAND MOBILE ANTENNAS

CR-320A 2m/220/440 2.15/3.8/5.5db 36" .... $ 89.95
CR-627B 6m/2m/440 2.15/4.5/7.2db 60" ant 99.95
CR-627BNMO 6m/2m/440 2.15/4.5/7.2db 60" 99.95
MV-3A 10/6/2m 57" UHF base mobile ant 84.95
HV-7A 10/6/2m/440 54" UHF base mobile ant 109.95
HVC-7 40m loading coil for MV-3A 39.95
HVC-14 20m loading coil for MV-3A 37.95
HVC-18 17m loading coil for MV-3A 37.95
HVC-21 15m loading coil for MV-3A 27.95
NR-2000NA 2m/440/1.2 3/6/9.7db 39" N mob 89.95
D-505 Mobile 40-1500MHz 20db receive ant 119.95

MAGNET MOUNTS

DPK-4NM-M Hvy mag mt, Yae N, 45" max ..D $ 39.95
DPK-4NM-N Hvy dty mag mt, cbl, N, 45" max 45.95
K-702M Hvy duty mag mt, 6⅝" dia, 50" max 49.95
MCR-M Mag mt HT base/coax/tilt BNC .....D 19.95
SPM-35 Hvy duty mag mt, cable, 45" max 39.95
SPM-NMO Hvy dty NMO mag mt, cbl, 45" max 44.95

TRUNK LIP MOUNTING KITS

K-200 Folding hatch/tnk mt; NR/SG ants ..... $ 34.95
K-200KM Folding hatch/tnk mt/coax; NR/SG . 62.95
K-400 Hatch/trunk mt; NR/SG antennas 39.95
K-400C Hatch/trunk mt w/coax; UHF mount . 69.95
K-400CNMO Hatch/trunk mt w/coax; NMO mt 69.95
K-400-3/8C Trunk mount w/6' cable; ⅜-24 ... 69.95
C-110 10' extension cable for K-400-3/8C 14.95
K-400N Hatch/trunk mt w/coax & type N 74.95
K-600M Tilt angle trunk mt w/cable 57.95
K-600P Tilt angle trunk mt w/cable, Yae N .D 44.95
K-601M SO-239 hideaway trunk mt, 6' coax . 69.95
K-601NMO NMO hideaway trunk mt, 6' coax . 69.95
C-110 10' extension cable for K-601 mts .. 14.95
K-9000LRM Motorized luggage rack mount .. 109.95
K-9000TM Motorized trunk/hatchback mt 109.95

GUTTER MOUNTS & KITS

K-300 Folding gutter mt; NR/SG antennas .Δ $ 39.95
K-300C Gutter mt w/cable; UHF mount .....Δ 69.95
K-300KM Folding gutter mt w/coax; NR/SG Δ 67.95
K-300M Gutter mt w/coax; NR/SG ants .....D 39.95

MIRROR & LUGGAGE RACK MOUNTS & KITS

K-540 Mirror/luggage rack mount ..... $ 35.95
K-540KM Mirror/luggage rack mt w/coax 59.95
K-550 Luggage mt; new mini vans (use GLP) 44.95
K-550KM Luggage mt w/SO-239 base/coax .. 69.95

MOUNTING GROUP HARDWARE

C-101 SO-239 mt, 6.5' RG-316 low-loss coax $ 29.95
C-101NMO NMO mt, 6.5' RG-316 low-loss coax 29.95
C-110 10' ext cable; C-101/K-601/K-400-3/8C 14.95
C-110BNC 10' extension cable to BNC male . 22.95
C-211 SO-239 mt, 6.5' coax, 10' coax entend 39.95
C-213 SO-239 mt, 13.5' RG-316 low-loss coax 37.95
C-213NMO NMO mt, 13.5' RG-316 low-loss coax 37.95
GLP-5 UHF base mtg group hrdwr; mini coax 10.95

Diamond - continued

AES Price

GLP-5N UHF mtg grp hrdwr; mini coax, Yae N 12.95
GLP-58 UHF base mounting group hardware 10.95
NMO-UHF Adapter to NMO; not for SG, 45" max 12.95

MULTIBAND HF BASE VERTICAL ANTENNAS

CP-5 80/40/20/15/10m 200w PEP 15' vert ... $279.95
CP-6 80/40/20/15/10/6m 200w PEP 15' vert 299.95

MONO-BAND BASE STATION ANTENNAS

CP-22E 2m 6.5db 9' base antenna ..... $ 59.95
DP-GH62 6m 6db 21' base antenna 147.95
F-22A 2m 6.7db 10.5' base antenna 99.95
F-22J 143.5-146.5MHz 6.7db 10.5' base ant 99.95
F-23A 2m 7.8db 15' base antenna 127.95
F-23C1 148-154MHz 7.8db 15' comm base . 173.95
F-23C2 150-160MHz 7.8db 15' comm base . 173.95
F-23J 143.5-146.5MHz 7.8db 15' base ant ... 159.95
F-142A 220 MHz 5.5db 6' base antenna ....Δ 119.95
F-718A 440 11.5db 15' type N base antenna 209.95
F-718L 420-430MHz 11.5db ATV N base ant 219.95

DUAL-BAND BASE STATION ANTENNAS

U-200 440/1.2GHz 8.3/11.7db 6' N base ant $129.95
X-50A 2m/440 4.5/7.2db 5.6' base antenna . 99.95
X-50NA 2m/440 4.5/7.2db 5.6' base N ant ... 99.95
X-200A 2m/440 6/8db 8.3' base antenna 139.95
X-300A 2m/440 6.5/9db 10.2' base ant .....Δ 164.95
X-500HA Hvy duty 2m/440 8.3/11.7db 17.8' ant 239.95
X-500HNA Hvy duty 2m/440 8.3/11.7db 17.8' N ant 239.95
X-510MA 2m/440 8.3/11.7db 17.2' base ant 189.95
X-510NA 2m/440 8.3/11.7db 17.2' type N ant 189.95
X-510NJ 143.5-146.5/428-442MHz 17.2' N .. 199.95
X-700HA 2m/440 9.3/13db 24' type base ant 399.95
X-700HNA 2m/440 9.3/13db 24' type N ant . 399.95
X-2200A 2m/220 6/7.8db 11.5' base ant 173.95

TRI-BAND BASE STATION ANTENNAS

D-130J 25-1300 MHz 200w discone ant ..... $ 89.95
U-5000A 2m/440/1.2GHz 4.5/8.3/11.7db 6' N 139.95
V-2000A 52-54MHz/2m/440 2.1/6.2/8.4db 8.3' 162.95
X-3200A 2m/220/440 6/7.8/8db 10' base 209.95
X-6000A 2m/440/1.2 6.5/9/10db 10.5' N 199.95
D-707E Base 40-1500MHz 20db receive ant 179.95

DUPLEXERS & TRIPLEXERS

MX-37 HF-440/1.2 100/50w N duplexer ..... $ 64.95
MX-62M HF-6m &2m/440, 12" cables dplxr . 74.95
MX-72D HF-2m/440 400/150/100w duplexer 43.95
MX-72H As MX-72D, w/12" cables 46.95
MX-72N As MX-72D, type N on 440, 12" cables 49.95
MX-214 2m/220 150/100w w/12" cables 69.95
MX-214D As MX-214, no cables 69.95
MX-324 2m/220/440 triplexer 99.95
MX-324D As MX-324, no cables 99.95
MX-2000 HF-6m/2m/440 400/400/250w triplexer 84.95
MX-2000D As MX-2000, no cables 79.95
MX-3000 HF-2m/440/1.2 400/200/100w triplexer 79.95
MX-3000D As MX-3000, no cables .....D 59.95
MX-3000N As MX-3000, type N, 12" cables .. 85.95

ACCESSORIES

CA-35R DC-500MHz 400w lightning protect . $ 29.95
CX-210A 1.5kw DC-1000MHz coax switch 44.95
CX-210N 1.5kw DC-1500MHz N coax switch . 74.95
CX-310A HD 3-pos DC-800MHz coax switch . 83.95
DL-30A 15/100w peak 0-500MHz dummy load 27.95
DL-30N 15/100w peak 0-500MHz N dummy load 39.95
GZV-4000 Variable 40A switching ps/meter/spkr 179.95
HB-400 HT air vent dash mount 19.95
HB-450 HT adjustable air vent dash mount D 29.95
HB-500 Remote head air vent dash mount ... 22.95
HB-650 HT door mt; side wind/glv bx .....D 29.95

Diamond Systems (DSY)

DSI-IBM-N Novice Class License software .Δ $ 9.95
DSI-IBM-T Technician Class License soft ....Δ 9.95
DSI-IBM-NC No Code Tech Class License soft Δ 9.95
DSI-IBM-A Advanced Class License soft ....Δ 9.95

AES Price

DIGIMAX (DIG)

B-12 Dry cell holder, switch; D-612 .....D $ .95
BAC-5 Nicad pack; D-500/D-510A .....D 2.95
BAC-12 Nicad pack; D-612/D-1200 .....D 2.95

DRAKE (DRA)

DEMOD-270 Multimode demod kit; TR-270 ... $ 99.95
TNC-270 9600 bps controller; TR-270 ..... 249.95
R-8B Shortwave receiver 1199.95
MS-8 1592 Speaker 49.95
1590 35-55, 108-174 MHz VHF converter .. 219.95
7852 R-8B technical manual 39.95
1591 Interface computer soft; original R-8 ..D 4.95
SW-8 Shortwave/air/FM receiver 799.95
1595 Carrying case for SW-8 ..... 49.95
SW-2 Shortwave receiver .....D 499.95
MS-8 1592 Speaker for SW-2 ..... 49.95
1334 Mobile mount kit for SW-1/SW-2 ..... 15.95
1594 Remote control for SW-2 ..... 49.95
2051 Tilt/carry handle for SW-1/SW-2 ..... 4.95

EASY-UP (UPS OK) (EAS)

EZ 29-24 Double strap chimney mount ..... $ 12.95
EZ 48-3ABX 3' boxed tripod w/pitch pad kit . 24.95
EZ 48-5ABX 5' boxed tripod w/pitch pad kit . 34.95
EZ-516 5' 16 ga steel mast .....pick-up only 7.95

EDCO (EDC)

TX-146 2m 50w 40db 3-stage helical filt ...D $ 19.95

EMERSON (EME)

EAN-3400 HDTV dig-ready amp omni TV ant ..D $ 49.95
ESR-220 Solar/dynamo AM/FM radio/flashlight . 29.95
ETA-333 Dual voltage foreign travel converter kit 19.95
EVO-6500 900MHz wireless vid obs sys/5" mon 169.95
EVO-6550 2nd 900MHz camera; EVO-6500 99.95
RP-001 12-function mini stainless multi tool 6.95
RP-005 6-func flashing safety strobe/reflector 6.95
RP-103 12-function stainless multi tool 6.95

FREEPLAY (BAY)

FPR-1B AM/FM/5.8-18SW 30min Freeplay radio D $ 69.95
SWL Antenna/FPA-7 Indoor SW antenna 19.95
FPR-2 AM/FM 60 minute Freeplay radio .....Δ 49.95
FPR-2SC AM/FM/solar clear case Freeplay ... 79.95
FPR-2SM AM/FM/solar gray case Freeplay 79.95
FPR-2SGSW AM/FM/5-18SW/solar 60min Freeplay 99.95
AC Adapter/FPA-3 For FPR-2 series radio .. 10.99
Headphones/FPA-1 For FPR-2 series radio 14.99
SWL Antenna/FPA-7 Indoor SW ant; FPR-2SGSW 19.95
S360-BL AM/FM/solar trans blue 15 hr Freeplay 69.95
S360-C AM/FM/solar clear case 15 hour Freeplay 69.95
FP-SL Yellow self powered Freeplay lantern .. 69.95
FP-SL-C-BL Translucent blue self powered lantern 69.95
Bulb/FPA-11 2-pack replacement bulbs 9.99
FPS-10/FPA-10 Patch cord for 3V output .. 6.99

Gamber-Johnson (GAM)

SS-100 Super slide mount w/ant plug ..... $ 79.95
SS-101 Extra base for SS-100 ..... 44.95

GAP VERTICALS (GAP)

DX-VIII Challenger 75*/40/20/15/12/10/6/2m 31.5' $279.95
*80m CW w/capacitor exchange from GAP
Challenger Counterpoise 25.95
(SYN) **100'** 3/32" black double braided rope .. 6.95
DX-VI Eagle 40/20/17/15/12/10m 21.5' rigid 289.95
DX-IV Voyager 160/80/40/20m 45'; use 350' guy 399.95
Voyager Counterpoise 50.95
(SYN) **350'** 3/16" black double braided rope .. 39.95
Titan DX 75*/40/30/20/17/15/12/10m, 25' .. 319.95
*80m CW w/capacitor exchange from GAP
100' Guy Kit with clamp 14.95
200' Guy Kit with clamp 22.95
Ground Mount Quick tilt mt for vertical ant . 69.95

Gap - continued

	AES Price
Ladder Mount Quick tilt mt; campers/RVs	69.95

GARMIN (GAR)

GPS-12CX Color GPS receiver	$269.95
GPS-12XL GPS receiver	219.95
GPS-III Plus GPS handheld mapping unit	369.95
GA-26C Low prof rem ant/cbl; GPSIII/III Plus	89.95
010-10048-00 Mounting bracket; 12CX/XL	31.95
010-10082-00 Power/data cable	27.95
010-10085-00 Cig lighter adapter cable	23.95
010-10111-00 Mtg bkt; GPS-III/III Plus	31.95
010-10117-01 Carying case	12.95
010-10141-00 PC interface cable	38.95
010-10165-00 PC cable w/cig adapter	45.95
010-10215-00 MapSource US CD;GPS-III Plus	99.95
StreetPilot 12 ch GPS receiver	469.95
GA-26C Low prof remote ant w/cable	89.95
010-10082-00 Power/data cable	27.95
010-10085-00 Cig lighter adapter	23.95
010-10141-00 PC interface cable	38.95
010-10165-00 PC cable w/cig adapter	45.95
010-10199-03 Carrying case	24.95
010-10227-00 Blank 8MB memory cartridge	99.99
eMAP Deluxe GPS/maping/8MB datacard/PC cbl	299.99
010-10215-00 MapSource US road&rec CD	99.95
eTREX 12 ch mini GPS receiver	145.95
010-10203-00 Cig lighter cbl; eMAP & eTREX	39.95
010-10205-00 Data cable; eMAP & eTREX	22.95
010-10206-00 PC interface cbl; eMAP & eTREX	38.95
NavTalk Analog cellular phone/GPS combo	399.95
010-10215-00 MapSource US road&rec CD	99.95

GLEN MARTIN (GME)

ROOF TOP TOWERS

RT-424 4.5' roof-top tower, 6 sq ft	$163.95
RT-832 8' roof-top tower, 8 sq ft	242.95
RT-936 9' roof-top tower, 18 sq ft	396.95
RT-1832 17.5' roof-top tower, 12 sq ft	530.95
MC-10 Mast clamp; 2 required	24.95
TB-25 Thrust bearing (2 sealed bearings)	79.95
LB-3755 Set of 8 ⅜ x 5" lag bolts	9.95
EL-3755 Set of 8 concrete L bolts	14.95
RA-6024 24" side arm for roof tower	41.95
RA-6048 48" side arm for roof tower	53.95

TOWERS

M-1330A 30' alum tower 12 sq ft w/Hazer .T	1615.95
M-1340A 40' alum tower 12 sq ft w/Hazer .T	1832.95
M-1350A 50' alum tower 12 sq ft w/Hazer .T	2070.95
M-1840A 40' alum tower 16 sq ft w/Hazer .T	2150.95
M-1850A 50' alum tower 16 sq ft w/Hazer .T	2410.95
M-1860A 60' alum tower 16 sq ft w/Hazer .T	3356.95
M-1870A 70' alum tower 16 sq ft w/Hazer .T	3660.95
ML-1800 Messenger line kit; GME towers	72.95
KB-1000 57" side arm; M-13 series	81.95
KB-1300 57" side arm; M-18 series	83.95
M-22 10' galv steel M-22 tower section	405.95
CHB-22 Footing assembly for M-22	261.95
B-22 Leveling base for M-22	379.95

LIGHTNING PROTECTION

LR-8400 Lightning rod kit (complete)	$ 89.95
GR-4400 Ground rod wire clamp	6.95
GR-5080 8' x ⅝" ground rod	20.95
TL-0470 Terminal lug	2.95
LR-8418 Lightning rod point, 18" long	28.95
LR-8452 Clamp; hold lightning rod to 2" mast	26.95
LR-8451 Clamp; hold lightning rod-1⅝" mast	24.95
CW-2540 25' #4 bare copper ground wire	19.95
CW-5040 50' #4 bare copper ground wire	39.95
CW-7540 75' #4 bare copper ground wire	58.95
CW-1040 100' #4 bare copper ground wire	66.95
CW-1240 125' #4 bare copper ground wire	97.95
CW-1540 150' #4 bare copper ground wire	117.95

HAZERS

H-2 175 lb load 12 sq ft HD aluminum Hazer	$361.95

Glen Martin - continued

	AES Price
H-3 150 lb load 8 sq ft std aluminum Hazer	274.95
H-4 200 lb load 16 sq ft galv steel Hazer	349.95
BW-8001 Brake winch for H-2/3/4	77.95
HR-2040 Roller bearing set for Hazers	64.95
HR-6010 T²X plates for H-2/3/4/5	26.95
HS-1301 Side arm for Hazers	64.95
ML-2500 Messenger line kit; Rohn towers	76.95
VH8-60 Hazer - for 60' Rohn 45G	1410.95
VH8-70 Hazer - for 70' Rohn 45G	1545.95
VH9-50 Hazer - for 50' Rohn 55G	1331.95
VH9-60 Hazer - for 60' Rohn 55G	1455.95
VH9-70 Hazer - for 70' Rohn 55G	1567.95

GUYING

HP-3000 Kevlar guy cable, 3000# per ft	$ .99
HP-4500 Kevlar guy cable, 4500# per ft	1.49
HP-7500 Kevlar guy cable, 7500# per ft	1.99
WR-125 ⅛" galv 7 x 7 guy cable per ft.	.49
WRS-156 5/32" SS 7 x 19 guy cable per ft.	.79
WRS-187 3/16" SS 7 x 19 guy cable per ft.	.89
WRS-250 ¼" SS 7 x 19 guy cable per ft.	.99
WR-1862 3/16" U-bolt clip	1.69
WR-2565 ¼" U-bolt clip	1.69
WR-3164 5/16" U-bolt clip	1.99
PT-2500 ¼" heavy duty thimble	2.69
PT-3100 5/16" heavy duty thimble	2.95
PT-3700 ⅜" heavy duty thimble	3.39
H-165 ¼" end cap	.79
H-164 5/16" end cap	.89
H-142 ⅜" end cap	.99
RG-4010 Lap link	7.95
ES-40 4" dia x 30" earth screw	21.95
EG-40 4" dia x 30" galv earth screw	32.95
ES-60 6" dia x 48" earth screw	38.95
EG-60 6" dia x 48" galv earth screw	54.95
ES-80 8" dia x 66" earth screw	67.95
TB-3806 ⅜" x 6" galv turnbuckle	17.95
TB-5009 ½" x 9" galv turnbuckle	23.95
TB-6212 ⅝" x 12" galv turnbuckle	40.95

MASTS

M-1049 9' 1.92" OD galv steel mast	$ 76.95
M-1040* 10' 1.92" OD galv steel mast .T	118.95
MA-1040* 10' 1.92" OD aluminum mast .T	122.95
*Truck, freight collect on M-1040 & MA-1040	
MA-1049 9' 1.92" OD aluminum mast	90.95
MA-2069 9' 2.375" OD aluminum mast	121.95
MA-1050 5' 1.92" OD aluminum mast	62.95
MA-5050 5' 1.33" OD aluminum mast	41.95
MP-1409 9' 2" OD .250 wall xtra HD fg mast	120.95
MP-1809 9' 2" OD .125 wall med dty fg mast	70.95

WINCHES

B-800 800 lb capacity w/4.5:1 gear ratio	$ 71.95
W-1100 1100 lb capacity w/3.9:1 gear ratio	39.95
W-1300 1300 lb capacity w/17:1 gear ratio	57.95
B-2000 2000 lb capacity w/17:1 gear ratio	125.95

All $25+ GLEN MARTIN orders are shipped PREPAID (except M-1040 & MA-1040) at Glen Martin's expense direct to you from the factory (48 states). We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

L.L. GRACE (GRA)

KCT Kansas City Tracker satellite package	$229.95
KCT/T Kansas City Tracker package/KC Tuner	319.95

GROTHE (GRO)

VS-2 Emergency vehicle siren	$ 89.95
VS-2LS/A Window mt siren/amber strobe	299.95
VS-2LS/B Window mt siren/blue strobe	299.95
VS-2LS/R Window mt siren/red strobe	299.95
VS-3 Volunteer vehicle PA/horn w/spkr	129.95
VS-4 P/A emergency vehicle siren w/spkr	139.95

GROVE (GRV)

	AES Price
ANT-20 No-Tenna Inside car rcv ant Δ	$ 2.95
BOK-104 Antenna Factbook Δ	4.95

GRUNDIG (GRU)

MiniWorld 100PE Mini AM/FM/SW receiver	$ 39.95
Satellit 800 AM/FM/SW/LW/aircraft receiver	499.95
Traveller II Port AM/FM/SW/LW Rcvr/clock .D	49.95
Traveller III Digital AM/FM/SW/LW receiver .D	99.95
Yacht Boy 300PE Port AM/FM/SW/LW Rcvr	99.95
Yacht Boy 400PE Port AM/FM/SW/LW Rcvr/ps	199.95

HAL (HAL)

DSP-4100 HF DSP modem special order	1099.95
DXP-38 External DSP HF radio modem	395.95
P-38 HF DSP modem board Δ	229.95
PCI-4000/M HF modem special order	795.95
RTTY-1 RTTY tuning indicator	99.95
ST-8000 HF modem special order	3269.95

HARGER (HRG)

GBIS18114AE ⅛" copper entrance ground bar kit	$ 27.95
GBIS18148AE ⅛" copper station ground bar kit	64.95
GEL3AE Package of 5 HD grounding lugs	15.95
GP1868.78AE ⅛" copper single pt gnd panel kit	54.95
GBX976AE NEMA-4x weatherproof enclosure	101.95

HEIL (HEI)

PRO-SET-4 Deluxe boom mic/headset/HC-4	$130.95
PRO-SET-5 Deluxe boom mic/headset/HC-5	130.95
PRO-MICRO-4 Boom mic/headset/HC-4	110.95
PRO-MICRO-5 Boom mic/headset/HC-5	110.95
PRO-5-4 Boom mic/single headset (HC-4)	120.95
PRO-5-5 Boom mic/single headset (HC-5)	120.95
AD-1-I Pro-Set 8-pin adapter cord for Icom	16.99
AD-1-K Pro-Set 8-pin adapt cord; Kenwood	16.99
AD-1-T Pro-Set 4-pin adapt cord; Ten-Tec	16.99
AD-1-Y Pro-Set 8-pin adapter cord; Yaesu	16.99
AD-1-I-M Pro-Set modular adapt cord; Ico	16.99
AD-1-K-M Pro-Set modular adapt cord; Ken	16.99
AD-1-Y-M Pro-Set modular adapt cord; Yae	16.99
FS-1 Foot switch	29.99
HS-1 Hand switch	24.99
HC-4 DX'ers 'dream machine' mic element	29.99
HC-5 Key microphone element	29.99
AD-100 Microphone/boomset adapter; FT-100	24.99
HMP In-line microphone preamp; Icom	54.99
HMP-M In-line mic pre/mod plug; IC706/MkII	54.99
GM-4 Goldline dual element studio mic w/HC-4	139.99
GM-5 Goldline dual element studio mic w/HC-5	139.99
GM-V Goldline vintage studio mic/matching xfmr	159.95
HM-10-4 Microphone with HC-4 element	64.99
HM-10-5 Microphone with HC-5 element	64.99
HM-10-Dual Mic w/HC-4 & HC-5 elements	114.99
CC-1-I HM-10 8-pin cable for Icom	29.99
CC-1-K HM-10 8-pin cable for Kenwood	29.99
CC-1-T HM-10 4-pin cable for Ten-Tec	29.99
CC-1-Y HM-10 8-pin cable for newer Yaesu	29.99
CC-1-I-M HM-10 modular cable for Icom	29.99
CC-1-K-M HM-10 modular cable; Kenwood	29.99
CC-1-Y-M HM-10 modular cable for Yaesu	29.99
LX-1 Balanced 41" Luxo boom	94.99
MA-1 Adjustable microphone boom	44.99
SB-1 Small adjustable mic boom w/C clamp	32.99
TB-1 Table base microphone stand	24.99
Boom Clip for BM-series	5.95
Ear Pads for BM-series pair	5.95
Ear Pads for **PRO**-series pair	8.95
Ham Radio Handbook	12.95
HD-AT 6db headph attenuator, ⅛"m-¼"f adapt	5.95
SM-1 Shock mount for any microphone boom	49.99
XT-1 Audio matching xfmr; lo-Z mic/tube Xcvr	15.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

AES Price

HUSTLER (HUS)

RM-80	80m CW 400w PEP resonator	$ 26.95
RM-75	75m phone 400w PEP resonator	26.95
RM-40	40m 400w PEP resonator	24.95
RM-30	30m 400w PEP resonator	24.95
RM-20	20m 400w PEP resonator	21.95
RM-17	17m 400w PEP resonator	21.95
RM-15	15m 400w PEP resonator	15.95
RM-12	12m 400w PEP resonator	15.95
RM-11	CB 400w PEP resonator	15.95
RM-10	10m 400w PEP resonator	15.95
RM-80S	80m CW 2kw PEP resonator	49.95
RM-75S	75m phone 2kw PEP resonator	49.95
RM-40S	40m 2kw PEP resonator	35.95
RM-20S	20m 2kw PEP resonator	28.95
RM-15S	15m 2kw PEP resonator	24.95
RM-11S	CB 2kw PEP resonator	23.95
RM-10S	10m 2kw PEP resonator	23.95
MO-1	54" mast for fender or deck mount	31.95
MO-2	54" mast for bumper mount	31.95
MO-3	54" no break-over mast	23.95
MO-4	22" mast for special applications	19.95
VP-1	Tri-band adapter	5.95
RSS-2	Resonator spring	9.95
QD-2	Stainless quick disconnect	19.95
L-14-144	12' RG-58, PL-259 to lugs	9.95
L-14-240	20' RG-58, PL-259 to lugs	12.95

STAINLESS 2" MOBILE BALL MOUNTS

SSM-1	Ball & spring, cadmium hardware	$ 46.95
SSM-2	Ball, cadmium hardware	26.95
SSM-3	Stainless steel spring	24.95

1-1/2" MOBILE BALL MOUNTS

C-32	Chrome plated ball	$ 11.95
C-30	Chrome plated spring	11.95
C-29	Stainless steel spring	17.95
BM-1	Single strap bumper mt w/C-32	21.95

3/8-24 THREAD MOBILE MOUNTS

HLM	Trunk lip mount w/swivel	$ 22.95
HOT	Hustloff trunk lip mt w/swivel	23.95
MBM	Super magnet mount w/16' coax	19.95
MM-3	Universal mount with 17' coax .....D	14.95
RVM	Recreational vehicle mount	20.95
TLM	Trunk lip mount	21.95

HF ANTENNAS

4-BTV	40/20/15/10m 21' trap vertical	$119.95
5-BTV	80/40/20/15/10m 25' trap vertical	149.95
30-MTK	30m trap kit for 4-BTV/5-BTV	41.95
6-BTV	80/40/30/20/15/10m 24' trap vert	179.95

VHF/UHF BASE STATION ANTENNAS

G3-144	2m 3db 7.5' vertical antenna	$ 63.95
G6-144B	2m 6db 10' vertical antenna	114.95
G6-270R	2m/440 6db 7.6' base station ant	159.95
G7-144	2m 7db 15' vertical antenna	159.95
G7-220	220 MHz 7db 10' vertical antenna	149.95
G6-440	440 MHz 6db 7' vertical antenna	139.95

BUSINESS BAND ANTENNAS

G7-150-4	7db 167-174 MHz base ant .....Δ	$ 99.95
G6-450-4	6db 470-478 MHz base ant .....Δ	89.95

VHF/UHF MOBILE ANTENNAS

BBG-144	2m 3.4db NMO coil/whip only	$ 39.95
BBGT-144	2m 3.4db NMO trunk lip mt ant	51.95
BBG-440-5	440 5db NMO coil/whip only	41.95
BBGT-440-5	440 5db NMO trunk lip mt ant	55.95
BBL-144A	2m ¾" hole mt antenna, 3.4db	39.95
BBLT-144A	2m trunk lip mt ant, 3.4db	47.95
CG-144	2m ⅜-24 ant, 7' high, 5.2db	31.95
CGT-144	2m trunk mt ant, 7' high, 5.2db	51.95
CG-220	220 MHz ⅜-24 ant, 5.2db	31.95
CGT-220	220 MHz 5.2db tnk mt ant	51.95
FX-220	220 3.4db magnetic mt ant .....D	29.95
FX-220B	220 3.4db black mag mt ant .....D	34.95
LMB-144	2m 3.4db black NMO coil/whip only	22.95

Hustler - continued

AES Price

LMB-270	2m/440 2.4/4db black NMO coil/whip only	32.95
LMB-440-5	440 5db black NMO coil/whip only	24.95
LMC-144	2m 3.4db NMO coil/whip only	23.95
LMC-270	2m/440 2.4/4db NMO coil/whip only	31.95
LMC-440-5	440 5db NMO coil/whip only	24.95
LMG-144	2m 3.4db NMO pushpin coil/whip only	25.95
LMG-440-5	440 5db NMO pushpin coil/whip only	27.95
MKR-2	Radial kit for SF-2/CG-144	20.95
MX-2	2m 3db NMO mag mt antenna	34.95
MX-2B	2m 3db black NMO mag mt ant	34.95
MX-220	220 3db NMO mag mt antenna	34.95
MX-220B	220 3db black NMO mag mt ant	34.95
MX-270	2m/440 2.4/4db NMO mag mt ant	58.95
MX-270B	2m/440 2.4/4db black NMO mag ant	59.95
MX-440	440 5db NMO mag mt antenna	36.95
MX-440B	440 5db black NMO mag mt ant	36.95
RX-2	2m 3.4db magnetic mount ant	24.95
RX-220	220 3.4db magnetic mt antenna	24.95
RX-440	440 5db magnetic mt antenna	24.95
SF-2	2m ⅜-24 ant, 4' high, 3.4 db	14.95
SF-220	220 MHz ⅜-24 antenna, 3 db	14.95
THF	140-500 MHz ¼ wave trunk mount ant	23.95
UGM	140-500 MHz ¼ wave BNC mag mt ant	21.95
UHT-1	140-500 MHz ¼ wave roof mt ant	14.95

CB & MONITOR ANTENNAS

1C-11	White trunk mount CB antenna	$ 13.95
1C-11B	Black trunk mt CB antenna	13.95
1C-100	White magnetic mount CB antenna	21.95
1C-100B	Black magnetic mt CB antenna	21.95
DTG	25" fg double-talk gutter mt CB ant	41.95
HQ-27	Power Packer ⅜-24 CB whip	17.95
HQ-27M	Power Packer trunk mt CB antenna	36.95
HQD	Dual fg mirror mount CB antenna	49.95
HQT	Single fg mirror mount CB antenna	27.95
RQM	Magnetic mount CB antenna	19.95
RTG-27L	25" CB antenna w/rain gutter mt	26.95
RTS-27L	25" CB antenna w/roof mount	26.95
SCB/BLK	46" black fiberglass CB whip	34.95
SCB/BLU	46" blue fiberglass CB whip	34.95
SCB/RED	46" red fiberglass CB whip	34.95
SCB/WHT	46" white fiberglass CB whip	34.95
SCB-S/BLK	35" black fiberglass CB whip	34.95
SCB-S/BLU	35" blue fiberglass CB whip	34.95
SCB-S/RED	35" red fiberglass CB whip	34.95
SCB-S/WHT	35" white fiberglass CB whip	34.95
DCL	Discone monitor ant w/50' coax & plugs	34.95
DCX	Discone monitor ant; 40-700 MHz	23.95
MOR	Roof/deck mt tri-band monitor ant	18.95
MOT	Trunk lip mt tri-band monitor antenna	19.95

HY-GAIN (HYG)

117	HG-10 10' 2" OD .120 wall steel mast .TΔ	$ 39.95
184	14RMQ Roof kit-12/14AVQ,18AVT .....Δ	19.95
189S	GRK-88 Ground radial kit .....Δ	49.95
190S	RRK-88 Roof radial kit .....Δ	59.95
191S	160MK-88 160m kit for 188S .....Δ	99.95
216S	216SAT 2m 16el 145.9MHz boom .....Δ	139.95
381S	19PD 80-10 233' 1-band port dip ....Δ	169.95
2400-155	62400155 Boom mic/headset .....Δ	49.95

MULTI-BAND VERTICAL ANTENNAS

AV-620	20/17/15/12/10/6m vertical ant	$269.95
AV-640	40/30/20/17/15/12/10/6m vertical	359.95

ANTENNA ROTORS

AR-40	3 sq ft antenna rotor/5-wire	$269.95
CD-45-II	8.5 sq ft antenna rotor/8-wire	369.95
HAM-IV	15 sq ft antenna rotor/8-wire	529.95
HAM-V	Digital 15 sq ft antenna rotor/8-wire	899.95
HDR-300A	Hvy duty dig 25 sq ft rotor/8-wire	1229.95
T-2X	Tailtwister 20 sq ft antenna rotor/8-wire	619.95
T-2XD	Tailtwister dig 20 sq ft ant rotor/8-wire	979.95

OPTIONAL ACCESSORIES FOR ROTORS

DCU-1	Digital rotor control; HAM-IV/T-2X	$619.95
MSHD	Lwr mast support; HAM-IV/V/T-2X/XD	81.95

Hy-Gain - continued

AES Price

MSLD	Lower mast support; CD-45II/AR-40	29.95
TSP-1	Tower spacer plate	29.95

See BELDEN for rotor cable

ICOM (ICO)

IC-781	Xcvr/Rcv/ps/tuner/scope special order	6999.95
CT-17	CI-V level converter	139.95
FL-103	2.8 KHz 9 MHz IF SSB filter	109.95
OPC-478	PC to radio cable	45.95
UT-36	Voice synthesizer .....D	74.95
IC-775DSP	Xcvr/ps/keyer/tuner/IF-DSP	3499.95
CR-282	High stability crystal unit	149.95
CT-17	CI-V level converter	139.95
FL-53A	250 Hz 455 KHz IF CW filter	199.95
FL-101	250 Hz 9 MHz IF CW filter	119.95
FL-102	6 KHz 9 MHz IF AM filter	94.95
FL-222	1.9 KHz 455 KHz IF SSB filter	199.95
FL-223	1.9 KHz 9 MHz IF SSB filter	99.95
FL-232	350 Hz 9 MHz IF CW/RTTY filter	104.95
HM-36	Scanning hand mic	74.95
MB-19	Rack mounting handles	74.95
OPC-478	PC to radio cable	45.95
SM-6	Desk microphone	119.95
SM-8	2-connector desk mic/up/down scan	169.95
SM-20	Deluxe desk microphone	219.95
SP-20	Speaker w/audio filter	249.95
SP-21	External speaker	119.95
IC-756	Xcvr/Rcvr/6m/IF-DSP/tuner/keyer ....D	1988.95
PS-85	Switching power supply	299.95
IC-756/PS-85	HF Xcvr/switching ps combo D	*2158.90
*Price w/instant coupon; coupon until gone!		
AH-4	80-6m 120w auto wire ant tuner	319.95
AH-2B	Bpr mt/whip; 40-6m use tuner	299.95
AH-2B	extra **whip only**	49.95
CR-502	High stability oscillator crystal	95.95
CT-17	CI-V level converter	139.95
FL-52A	500 Hz 455 KHz IF CW filter	199.95
FL-53A	250 Hz 455 KHz IF CW filter	199.95
FL-100	500 Hz 9 MHz IF CW filter	119.95
FL-101	250 Hz 9 MHz IF CW filter	119.95
FL-222	1.9 KHz 455 KHz IF SSB filter	199.95
FL-223	1.9 KHz 9 MHz IF SSB filter	99.95
FL-232	350 Hz 9 MHz IF CW/RTTY filter	104.95
FL-257	3.3 KHz 455 KHz IF SSB filter	189.95
HM-36	Scanning hand mic	74.95
OPC-478	PC to radio cable	45.95
SM-6	Desk microphone	119.95
SM-8	2-connector desk mic/up/down scan	169.95
SM-20	Deluxe desk microphone	219.95
SP-20	Speaker w/audio filter	249.95
SP-21	External speaker	119.95
UT-102	Voice synthesizer	74.95
IC-756PRO	Xcvr/Rcvr/6m/IF-DSP/tuner/keyer	2999.95
Free world clock direct from Icom - limited time!		
AH-4	80-6m 120w auto wire ant tuner	319.95
AH-2B	Bpr mt/whip; 40-6m use tuner	299.95
AH-2B	extra **whip only**	49.95
CT-17	CI-V level converter	139.95
HM-36	Scanning hand mic	74.95
OPC-478	PC to radio cable	45.95
SM-6	Desk microphone	119.95
SM-8	2-connector desk mic/up/down scan	169.95
SM-20	Deluxe desk microphone	219.95
SP-20	Speaker w/audio filter	249.95
SP-21	External speaker	119.95
UT-102	Voice synthesizer	74.95
IC-746	Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic	*1489.95
*Price w/instant coupon; coupon expires 6/30/00		
Icom logbook FREE w/IC-746! Limited Time!		
PS-85	Switching power supply	299.95
AH-4	80-6m 120w auto wire ant tuner	319.95
AH-2B	Bpr mt/whip; 40-6m use tuner	299.95
AH-2B	extra **whip only**	49.95
CR-282	High stability crystal unit	149.95

Icom - continued — AES Price

CT-17 CI-V level converter	139.95
RS-746 Win remote control software	79.95
FL-52A 500 Hz 455 KHz IF CW filter	199.95
FL-53A 250 Hz 455 KHz IF CW filter	199.95
FL-96 2.8 KHz 455 KHz IF SSB filter	169.95
FL-100 500 Hz 9 MHz IF CW filter	119.95
FL-101 250 Hz 9 MHz IF CW filter	119.95
FL-103 2.8 KHz 9 MHz IF SSB filter	109.95
FL-222 1.9 KHz 455 KHz IF SSB filter	199.95
FL-223 1.9 KHz 9 MHz IF SSB filter	99.95
FL-232 350 Hz 9 MHz IF CW/RTTY filter	104.95
OPC-478 PC to radio cable	45.95
SM-6 Desk microphone	119.95
SM-8 2-connector desk mic/up/down scan	169.95
SM-20 Deluxe desk microphone	219.95
SP-21 External speaker	119.95
UT-102 Voice synthesizer	74.95
MB-49 Mobile mounting bkt; IC-738 ....Δ	29.95
IC-707 Xcvr/SW Rcvr w/mic ....D	649.95
PS-85 Switching power supply	299.95
AH-4 80-6m 120w auto wire ant tuner	319.95
AH-2B Bpr mt/whip; 40-6m use tuner	299.95
AH-2B extra **whip only**	49.95
CR-338 High stability crystal unit	81.95
CT-17 CI-V level converter	139.95
FL-52A 500 Hz 455 KHz IF CW filter	199.95
FL-53A 250 Hz 455 KHz IF CW filter	199.95
MB-23 Side mount carrying handle	15.95
MB-5 Mobile mount	59.95
SM-6 Desk microphone	119.95
SM-8 2-connector desk mic/up/down scan	169.95
SM-20 Deluxe desk microphone	219.95
SP-7 Small external speaker	94.95
SP-20 Speaker w/audio filter	249.95
SP-21 External speaker	119.95
UI-9 FM module ....D	109.95
UT-30 Tone encoder	55.95
IC-706 Mk II Mini Xcvr/SW Rcvr/6m/2m/DSP D	998.95
IC-706 Mk II G* Mini Xcvr/Rcvr/6m/2m/440/DSP †	*1149.95
*Price w/instant coupon; coupon expires 6/30/00	
*$20 Comet rebate; CA-UHV/IC-706MkIIG thru 6/30/00	
706IIG/AH4 IC-706 Mk II G/AH-4 combo ...†	*1439.90
*Price w/instant coupon; coupon expires 6/30/00	
706IIG/AT180 IC-706 Mk II G/AT-180 combo †	*1599.90
*Price w/instant coupon; coupon expires 6/30/00	
(BET) **706 Tune Control** for IC-706-series	32.95
PS-85 Switching power supply	299.95
AH-4 80-6m 120w auto wire ant tuner	319.95
AH-2B Bpr m/whip; 40-6m use tuner	299.95
AH-2B extra **whip only**	49.95
AT-180 Auto coax antenna tuner; HF+6m	499.95
OPC-598 23' extension cable for AT-180	73.95
CR-502 High stab oscillator xtal; Mk II ...D	95.95
CR-282 High stability crystal unit; Mk II G	149.95
Suggest dealer install; CR-502/CR-282, Mk II/Mk II G	
CT-17 CI-V level converter	139.95
FL-100 500 Hz 9 MHz IF CW filter	119.95
FL-101 250 Hz 9 MHz IF CW filter	119.95
FL-103 2.8 KHz 9 MHz IF SSB filter	109.95
FL-223 1.9 KHz 9 MHz IF SSB filter	99.95
FL-232 350 Hz 9 MHz IF CW/RTTY filter	104.95
HM-95 TTP microphone ....Δ	79.95
HM-118T TTP microphone	59.95
MB-62 Mounting bracket for main unit	25.95
MB-63 Mounting bracket for control panel	18.95
MB-65 Mounting base platform	35.95
MB-72 Carrying handle; 706/Mk II/Mk II G	14.95
OPC-478 PC to radio cable	45.95
OPC-581 11.5' separation cable	60.95
OPC-587 16' separation cable	79.95
OPC-599 7+8-pin to 13-pin adapter	60.95
OPC-742 13-pin cable	60.95
RMK-706 Package; MB-62/MB-63/OPC-581	70.95
SM-6 Desk microphone	119.95

Icom - continued — AES Price

SM-8 2-connector desk mic/up/down scan	169.95
SM-20 Deluxe desk microphone	219.95
OPC-589 8-pin to jack adapt; SM-6/8/20	35.95
SP-7 Small external speaker	94.95
UT-86 Tone squelch; IC-706 Mk II only	69.95
UT-102 Voice synthesizer	74.95
UT-106 Plug-in DSP; early 706 Mk II only	149.95
AH-710 1.9-30 MHz 80' folded dipole	299.95
PW-1 160-6m linear amplifier/ps/tuner	4799.95
OPC-137 Adapter cable; older Icom Xcvr .D	19.95

RECEIVERS

R-1* .1MHz-1.3GHz AM/FM handheld Rcvr ..D	$299.95
HP-4 Lightweight headphones	29.95
R-2-06 .5M-1.3G AM/FM hand/batts/cgr/cell blkd †	199.95
R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr	219.95
AD-92SMA SMA- BNC adapter	16.95
BC-127A Extra nicad charger	20.95
CS-R2 DOS programming software; R-2	13.95
OPC-474 Cloning cable (R-2 to R-2)	18.95
OPC-478 PC - radio programming cable	45.95
CSW-HHRX Win prog soft/cable; R-2/R-10	50.95
HP-4 Lightweight headphones	29.95
LC-146 Carrying case	38.95
SP-13 Earphone	4.95
R-10-05 .5M-1.3G AM/FM/SSB hand/cell blkd †	*299.95
*Price w/instant coupon; coupon expires 6/30/00	
R-10-15* .5MHz-1.3GHz AM/FM/SB HH Rcvr †	*299.95
*Price w/instant coupon; coupon expires 6/30/00	
CP-12L Right angle cig cable w/filter	36.95
CS-R10 DOS programming software; R-10	13.95
OPC-474 Cloning cable (R-10 to R-10)	18.95
OPC-478 PC - radio programming cable	45.95
CSW-R10 Windows prog soft/cbl; R-10 ...D	39.95
CSW-HHRX Win prog soft/cable; R-10/R-2	50.95
CT-17 CI-V level converter	149.95
HP-4 Lightweight headphones	29.95
LC-140 Carrying case for R-10	38.95
OPC-254L Right angle mini DC pwr cable	14.95
SP-13 Earphone	4.95
CK-70 (EX-299) 12v DC option; R-7000 .....Δ	41.95
FL-63A 250 Hz CW filter; R-71A ....D	79.95
UI-8 FM unit; R-72A ....D	39.95
PCR-100-12 .01-1300 am/fm PC Rcv/cell blkd †	*199.95
*Price w/instant coupon; coupon expires 6/30/00	
PCR-100-08* .01-1300 PC controlled Rcvr ....†	*199.95
*Price w/instant coupon; coupon expires 6/30/00	
AH-7000 25-1000 MHz discone ant w/coax	179.95
PCR-1000 .5-1300 am/fm/sb PC Rcv/cell blkd †	*349.95
*Price w/instant coupon; coupon expires 6/30/00	
PCR-1000-03/07* .5-1300 PC control Rcvr . †	*349.95
*Price w/instant coupon; coupon expires 6/30/00	
AH-7000 25-1000 MHz discone ant w/coax	179.95
UT-106 Plug-in DSP unit	149.95
R-75 .03-60 MHz shortwave receiver	*699.95
*Price w/instant coupon; coupon expires 6/30/00	
CR-282 High stability crystal unit	149.95
CT-17 CI-V level converter	139.95
FL-52A 500 Hz 455 KHz IF CW filter	199.95
FL-53A 250 Hz 455 KHz IF CW filter	199.95
FL-96 2.8 KHz 455 KHz IF SSB filter	169.95
FL-100 500 Hz 9 MHz IF CW filter	119.95
FL-101 250 Hz 9 MHz IF CW filter	119.95
FL-103 2.8 KHz 9 MHz IF SSB filter	109.95
FL-222 1.9 KHz 455 KHz IF SSB filter	199.95
FL-223 1.9 KHz 9 MHz IF SSB filter	99.95
FL-232 350 Hz 9 MHz IF CW/RTTY filter	104.95
FL-257 3.3 KHz 455 KHz IF SSB filter	189.95
MB-5 Mobile mount	59.95
MB-23 Side mount carrying handle	15.95
OPC-478 PC to radio cable	45.95
RS-R75 PC control software w/RS-232 cable	80.95
SP-21 External speaker	119.95
UT-102 Voice synthesizer	74.95

Icom - continued — AES Price

UT-106 Plug-in DSP unit	149.95
R-8500 .1M - 2G receiver/cell blocked ....†	1499.95
R-8500-03* .1MHz - 2GHz receiver ....†	1499.95
AH-7000 25-1000 MHz discone ant w/coax	179.95
CR-293 High stability xtal unit	329.95
FL-52A 500 Hz CW filter	199.95
MB-12 Mobile mount	59.95
MB-23 Side mount carrying handle	15.95
RS-R8500 PC control soft w/RS-232 cable	80.95
SP-7 Small external speaker	94.95
SP-21 External speaker	119.95
TV-R7100 TV/FM adapter; R-8500/R-7100	369.95
UT-102 Voice synthesizer	74.95
R-9000L* .1-1.999.8MHz Rcvr/LCD disp spec order	8299.95
SP-20 Speaker w/audio filter	249.95
UT-36 Voice synthesizer ....D	74.95

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-1/R-2/R-10/PCR-100/PCR-1000/R-7000/R-8500 for official government or communications utility company use only. R-9000L may be purchased only by the United States government. Mail or FAX purchase order to AES. Exports: inquire.

2m TRANSCEIVERS

UT-101 DTMF unit for IC-2000H ....Δ	$ 28.95
IC-2100H 55w 2m FM Xcvr/TTP mic	199.95
BC-96 Microphone holder	43.95
CP-13L Cig cable w/filter for BC-96	40.95
CS-2100 DOS cloning software	13.95
OPC-478 PC to radio cloning cable	45.95
CSW-2100 Win prog soft/cable; IC-2100H	50.95
EX-1513 Infrared sub receiver	28.95
EX-1759 Infrared receiver	99.95
HM-90A Wireless microphone	159.95
HS-62 Flexible mobile mic ....D	59.95
MB-17A Quick release bracket	49.95
OPC-347 23' DC power cable	46.95
OPC-440 Mic extension cable	85.95
OPC-441 Speaker extension cable	33.95
OPC-474 Radio to radio cloning cable	18.95
OPC-589 8-pin to jack adapter	35.95
OPC-647 8.2' mic extension cable	54.95
UT-67 Tone squelch unit ....Δ	39.95
IC-207H 45w 2m/35w 440 FM Xcvr/TTP	309.95
BC-96 Microphone holder	43.95
CP-13L Cig cable w/filter for BC-96	40.95
OPC-288L DC power cable for BC-96	19.95
CS-207 DOS prog software; IC-207H	13.95
CSW-207/2710 Win cloning soft; 207/2710	30.95
OPC-646 Prog cbl; CS-207/CSW-207/2710	89.95
EX-1759 Infrared receiver	99.95
HM-90A Wireless microphone	159.95
MB-17A Quick release bracket	49.95
MB-58 Remote controller bracket	39.95
OPC-347 23' DC power cable	46.95
OPC-440 Mic extension cable	85.95
OPC-441 Speaker extension cable	33.95
OPC-589 8-pin to jack adapter	35.95
OPC-600 11.5' separation kit	45.95
OPC-601 23' separation kit	60.95
OPC-647 8.2' mic extension cable	54.95
RMK-3 Package; MB-58/OPC-600/OPC-647	84.95
UT-89 Tone scan/decode unit; IC-2350H ....Δ	89.95
CS-2710 DOS prog software; IC-2710H .....Δ	4.95
UT-104 Tone squelch unit; IC-2710H .....Δ	39.95
IC-2800H 50w 2m/35w 440 FM Xcvr/9600	*519.95
*Price w/instant coupon; coupon expires 6/30/00	
CS-2800 Windows cloning software	13.95
OPC-478 PC to radio cloning cable	45.95
EX-1513 Infrared sub receiver	28.95
EX-1759 Infrared receiver	99.95
HM-90A Wireless microphone	159.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Icom - continued

	AES Price
MB-17A Quick release bracket	49.95
MB-65 Mounting base platform	35.95
MB-73 Controller bracket	26.95
OPC-347 23' DC power cable	46.95
OPC-440 Mic extension cable	85.95
OPC-589 8-pin to jack adapter	35.95
OPC-647 8.2' mic extension cable	54.95
OPC-872 Controller extension cable	27.95
SP-10 Slim-line external speaker	69.95
UT-49 DTMF decoder unit	74.95
IC-821H 2m/430 SSB/FM sat Xcvr/9600/mic D	1399.95
PS-85 Switching power supply	299.95
AG-25 2m mast mounted GaSFET preamp	189.95
AG-35 430 MHz mast mounted preamp	199.95
CR-293 High stability xtal unit	329.95
FL-132 500 Hz main receiver CW filter	119.95
FL-133 500 Hz sub band receiver CW filter	119.95
HM-12 Scan hand microphone	74.95
MB-5 Mobile mount	59.95
MB-23 Side mount carrying handle	15.95
SM-6 Desk microphone	119.95
SM-20 Deluxe desk microphone	219.95
SP-7 Small external speaker	94.95
SP-20 Speaker w/audio filter	249.95
SP-21 External speaker	119.95
UT-36 Voice synthesizer; 821H	74.95
UT-84 Tone squelch unit; 821H	99.95
UT-102 Voice synthesizer; 821H	74.95
MB-50 Rem controller bkt; Delta100H D	4.95
OPC-332 11.5' sep kit; Delta100H D	4.95
OPC-333 23' sep kit; Delta100H D	4.95
OPC-335 16.4' spkr cbl; Delta100H D	4.95

Accessories for IC-2AT

BC-25U Extra wall cgr; BP-3 only Δ	$ 29.95
BC-35 Drop-in rapid charger D	99.95
BM-112U/BC-16U Wall cgr; 5A/7/8 only Δ	26.95
BP-3 250ma 8.4v battery Δ	49.95
BP-4 Alkaline battery case Δ	35.95
BP-5 425ma 10.8v high power battery Δ	89.95
BP-5A 425ma 10.8v direct charge battery Δ	89.95
BP-7 425ma 13.5v 5w battery D	89.95
BP-8 800ma 8.4v long life battery Δ	99.95
CP-1 Cig cgr; BP-3/7/8//DC cord Δ	26.95
CP-11 Cig cord w/noise filter Δ	40.95
DC-1 DC operation module Δ	40.95
FA-2 2m BNC rubber antenna Δ	14.95
HH-SS Handheld shoulder strap Δ	4.95

Accessory for IC-2iA

AD-26 Batt pack adapt; rapid cgr D	$ 2.95
IC-T2H 6w 2m FM HT/8 AA nicads/cgr	169.95
AD-81 Adapter for BC-119-11	17.95
BC-119-11 Desk charger (adapter required)	94.95
BC-133 Drop-in trickle charger	40.95
BP-194 AA alkaline battery case	18.95
BP-195 9.6v 700ma nicad battery	42.95
BP-196 9.6v 1050ma nicad battery	53.95
CP-12L Rt angle cig charge cable w/filter	36.95
CS-T2 DOS prog software for IC-T2	13.95
OPC-474 Cloning cable (T2 to T2)	18.95
OPC-478 PC to radio cloning cbl; T2	45.95
CSW-HH4 Windows prog soft w/cable; T2	50.95
HM-46 Slim-line speaker/mic	45.95
HM-54 Hvy duty spkr/mic	83.95
HM-75A Remote control microphone	70.95
HS-51 Headset w/VOX	96.95
LC-145 Carrying case for IC-T2	38.95
OPC-254L Right angle mini DC chg cable	14.95
SP-13 Earphone	4.95
LC-123 Vinyl case; Z1A; BP170/71/72 D	4.95
UT-93 Tone squelch; early IC-Z1A D	4.95
IC-T22A 3w 2m FM HT/batt/cgr/TTP	239.95
IC-T7H 6w 2m/440 HT/batt/cgr/TTP	229.95
IC-W32A 5w 2m/440 FM HT/batt/cgr/TTP/tone	299.95

Icom - continued

	AES Price
AD-51 Batt pack adapter; W32A	14.95
AD-56 Batt pack adapter; T22A/T7	18.95
BC-119-11 Desk charger (adapter required)	94.95
BP-170 Battery case	35.95
BP-171 4.8v 700ma battery Δ	49.95
BP-172 4.8v 950ma battery	91.95
BP-173 9.6v 600ma battery	139.95
BP-180 7.2v 600ma battery	83.95
CP-12 Cig lighter cable w/filter	36.95
CP-12L Right angle cig cable w/filter	36.95
CS-T7 DOS prog software for IC-T7 †	4.95
CSW-32 DOS prog software for IC-W32A	13.95
OPC-474 Cloning cbl (IC-32A to IC-32A)	18.95
OPC-478 PC to radio cloning cbl;T7/W32A	45.95
CSW-HH4 Windows prog soft/cbl; W32A/T7	50.95
FA-1443B Extra 2m/440 dual band flex ant	29.95
HM-46 Slim-line speaker/mic	45.95
HM-46L Slim-line spkr/mic, rt angle plug	45.95
HM-54 Heavy duty spkr/mic	83.95
HM-75A Remote control microphone	70.95
HS-10 Boom mic/headset	69.95
HS-10SA VOX unit	69.95
HS-10SB PTT switchbox	69.95
HS-85 Headset w/VOX	89.95
LC-125 Vinyl case; T22A w/BP170/171/172	38.95
LC-126 Vinyl case; T22A w/BP173	38.95
LC-128 Vinyl case; IC-W32A	38.95
LC-136 Vinyl case; T7 w/BP170/171/172	38.95
LC-137 Vinyl case; T7 w/BP173/180	38.95
MB-30 Mobile/wall bracket	41.95
NCP-1 Nylon chest pack	39.95
OPC-254 Mini DC power cable	14.95
OPC-254L Right angle mini DC pwr cable	14.95
SP-13 Earphone	4.95
UT-94 Tone squelch unit; T22A	55.95
IC-Q7ABC 350mw 2m/440 HT/batts/cgr	134.95
AD-92SMA SMA- BNC adapter	16.95
BC-127A Extra nicad charger	20.95
HM-46 Slim-line speaker/mic	45.95
HS-85 Headset w/VOX	89.95
SP-13 Earphone	4.95
OPC-782 Plug adapt cbl; HM46/HS85/SP13	16.95
LC-146 Carrying case	38.95
IC-T8A/HP 5w 6m/2m/440 HT/BP200/cgr/TTP	239.95
BP-197 batt case FREE w/IC-T8A/HP limited time!	
IC-T81A 5w 6m/2m/440/1w 1.2 HT/batt/cgr/TTP	349.95
AD-87 Batt pack adapter for rapid charger	8.95
AD-88 PCB board; orig BC-119-11	29.95
AD-92SMA SMA- BNC adapter	16.95
BC-119-31 Desk charger (adapter required)	99.95
BP-197 3 AA battery case	24.95
BP-198 4.8v 700ma NiMH battery	59.95
BP-199 6v 700ma NiMH battery	70.95
BP-200 9.6v 680ma NiMH battery	85.95
CP-12 Cig lighter cable w/filter	36.95
CP-12L Right angle cig cable w/filter	36.95
CS-T8K DOS prog soft w/cable; IC-T8A/HP	58.95
CS-T81 Windows cloning software; IC-T81A	13.95
OPC-474 Cloning cable (radio to radio)	18.95
OPC-478 PC to radio cloning cable	45.95
CSW-HH4 Win prog soft w/cbl; IC-T8A/HP	50.95
HM-46 Slim-line speaker/mic	45.95
HM-54 Heavy duty spkr/mic	83.95
HM-75A Remote control microphone	70.95
HS-51 Headset w/VOX	96.95
HS-85 Headset w/VOX	89.95
LC-147 Carrying case; IC-T8A/HP	24.95
LC-148 Carrying case; IC-T81A	24.95
OPC-254 Mini DC power cable	14.95
OPC-254L Right angle mini DC pwr cable	14.95
SP-13 Earphone	4.95
BP-130 Battery case; W21AT Δ	19.95
BP-131 900ma 7.2v batt/mic; W21AT D	49.95
BP-132 600ma 12v batt/mic; W21AT D	79.95

Icom - continued

Accessories for IC-2SAT/2SRA/24AT/W2A

	AES Price
AH-20 Replacement rcv ant; IC-2SRA Δ	$ 28.95
BA-12 Drop-in charger adapter Δ	19.95
BC-110A/BC-74 Wall cgr; BP-111-114 Δ	34.95
BP-82 7.2v 300ma battery Δ	49.95
BP-83 7.2v 600ma battery Δ	79.95
BP-84 7.2v 1000ma battery Δ	99.95
BP-90 AA alkaline battery case Δ	35.95
MB-22 Alligator belt/pocket clip Δ	4.95
IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP	229.95
AD-25 Battery charger adapter Δ	59.95
AD-28 Batt pack adapter for rapid charger	18.95
BC-105A/BC-77 Extra wall charger	40.95
BC-119-11 Desk charger (adapter required)	94.95
BP-130A Battery case Δ	35.95
BP-157A 900ma 7.2v battery	85.95
BP-160 700ma 7.2v battery Δ	29.95
BP-174 600ma 12v battery	98.95
CP-13 Cig cable w/filter	40.95
CP-13L Right angle cig cable w/filter	40.95
HM-46 Slim-line speaker/mic	45.95
HM-46L Slim-line spkr/mic, rt angle plug	45.95
HM-54 Heavy duty spkr/mic	83.95
HM-55A Speaker/mic w/TTP Δ	59.95
HS-51 Headset w/VOX	96.95
LC-116 Carrying case; BP-130A/157A/160	38.95
LC-117 Carrying case for BP-132A	38.95
MB-30 Mobile/wall bracket	41.95
OPC-288 Mini DC power cable	19.95
SP-13 Earphone	4.95
UT-49 DTMF decoder unit	74.95
AD-22 External batt chg adapt; D1A D	19.95
AD-27 Batt pack adapt; rapid cgr; D1A D	4.95
LC-82 Vinyl case; Delta-1A w/BP-103 D	9.95
AD-44 Batt adapt; rapid cgr; T21A D	1.95
LC-109 Vinyl case; BP151/159; T21A D	9.95
LC-110 Vinyl case; BP-153; ICT21A D	2.95
LC-111 Vinyl case; BP-152; IC-T21A D	14.95

440 MHz & 1.2 GHz EQUIPMENT

RP-4020/50w 50w 440 repeater/ps spec order	2649.95
RP-4020 requires service dept. set-up; $72 minimum	
AG-1200 1.2 GHz mast mt preamp	169.95

ACCESSORIES

CT-16 Satellite interface unit	$144.95
CT-17 CI-V level converter	139.95
HM-12 Scan hand microphone	74.95
HM-14 Scan/TTP microphone D	99.95
HM-56A Autodial TTP mic D	129.95
MB-23 Side mount carrying handle	15.95
OPC-137 Adapter cable; older Icom Xcvr D	19.95
PS-85 Power supply	299.95
SM-6 Electret desk microphone	119.95
SM-8 2-connector desk mic w/up/down scan	169.95
SM-20 Deluxe desk microphone	219.95
SP-5 Mobile speaker	54.95
SP-7 Small external speaker	94.95
SP-10 Slim-line external speaker	69.95
SP-12 Slim-line speaker w/visor clip D	39.95
SP-20 Speaker w/audio filter	249.95

CONSUMER ELECTRONICS

A-22 5w PEP compact Navicom air handheld	$549.95
BM-113U Trickle charger; F10/F20 Δ	9.95
IC-M3A 5w VHF marine handheld w/AA nicads	159.95
IC-M45W White 25w VHF marine Xcvr D	179.95
IC-M45AW White 25w VHF marine Xcvr	199.95
M-710 (21) 150w HF marine SSB .spec order	1399.95
M-710-05 (22) 150w 1.6-27.5 SSB .spec order	1599.95
AT-130 HF marine auto ant tuner spec order	449.95
IC-4008A Family radio service black handheld	79.95
BC-127A Charger for 2 or 4 AA nicads	20.95
BP-202 Nicad battery assembly	17.95
HM-46 Slim-line speaker/mic	45.95

Icom - continued

	AES Price
HS-85 Headset w/VOX	89.95

IDIOM PRESS (IDI)

K-3 Logikey CW keyer	$119.95
HK-3 Hook-up kit	10.95

INTERFLEX (INT)

dspGOLD Software for AEA DSP-2232 .....Δ	$ 49.95

International Ant (IAC)

160m double **Bazooka** 248' antenna	$195.95
80m double **Bazooka** 121' antenna	135.95
40m double **Bazooka** 64' antenna	115.95
160m-S 160m half sloper 127' antenna	140.95
80m-S 80m half sloper 67' antenna	115.95
40m-S 40m half sloper 33' antenna	105.95

ISOTRON (ISO)

160C 160m 9.5' x 16" x 15" 100 KHz bandwidth ant	$169.95
80 80m 32" x 16" x 15" 110 KHz bandwidth ant	95.95
40 40m 22" x 16" x 15" 250 KHz bandwidth ant	85.95
20 20m 21" x 8" x 4" 350 KHz bandwidth ant	74.95
15 15m 21" x 1.5" x 4" 450 KHz bandwidth ant	64.95
10 10m 16" x 1.5" x 4" 1 MHz bandwidth ant	64.95
6 6m 16.5" x 2" x 4" 1.25 MHz bandwidth ant	69.95
80/40 Combo* 80/40m 32" x 16" x 30" ant	168.95
20/15/10 Combo 20/15/20m combo ant	187.95

*Requires coaxial "T's" & jumpers - not included

JPS (JPS)

NRF-7 Noise reducer and filter unit.....D	$149.95
SDK-12 Soft development kit; NIR-12 .....D	24.95

JSC (JSC)

JRR-520 5-wire rotor cable .....Δ, per ft.	$ .14
JRR-520 .....Δ, **100** ft. Roll	12.95
JRR-520 .....Δ, **500** ft. Roll	44.95
JRR-520 .....Δ, **1000** ft. Roll	79.95

K-COM (KCO)

RF-1 Modular telephone 3-30 MHz RFI filter	$ 16.95
RF-1/Low Modular phone .5-3 MHz RFI filter	16.95
RF-1/2-line 2-line modular 3-30 MHz RFI filt	22.95
RF-1/coiled Coiled cord modular 3-30MHz filt	22.95
RF-2 Hard-wired telephone 3-30 MHz RFI filt	10.95

KC Tracker (See GRACE)

KLM (KLM)

2M-16LBXM 2m 16 el beam, 28' bm, 14.5db .D	$149.95

KACHINA (KAC)

505-DSP/505-AT2 PC HF Xcvr/tuner installed Δ	1999.95
505-MB Mobile mount bracket .....Δ	29.95
505-SM Rubber shock mts; 505-MB ....Δ	14.95
970055 25' control head cable .....Δ	39.95
970056 75' control head cable .....Δ	69.95
970057 25' RS-232 cable .....Δ	12.95
970058 75' RS-232 cable .....Δ	29.95

KANTRONICS (KAN)

Data Engine TNC w/no modems .....D	$149.95
Data Engine w/DE-1200 modem .....D	199.95
GPS Tracker GPS/active ant/KPC-3 Plus pack D	499.95
KPC-3 Plus/128K Small packet TNC/128K RAM	179.95
KPC-3 Plus User's Guide (comes w/KPC3+) Δ	14.95
KPC-**9612 Plus/128K** 9600 controller/128K ...	369.95
128K 128K memory upgrade; KPC-3/9612	24.95
KAM 98 Single port multi-mode dig controller	399.95
12VDC Adaptor 300ma adapt; KAM 98/KPC3	12.95
Host Master II+ IBM software	89.95
Log Windows CSS Software	49.95
Package 3 Upgrade; KAM Plus .....Δ	49.95
Pacterm 98 CSS Software; Kan TNCs	79.95
Superfax II WX FAX program for IBM	59.95
APRS adapter cable; GPS to Kantronics TNC	32.95
G-TOR Book .....Δ	9.95

Kantronics - continued

	AES Price
Pager Handbook for the Radio Amateur .....Δ	9.95

KENWOOD (KEN)

TS-950SDX Dlx Xcvr w/keyer/DSP/filters	3999.95
DRU-2 Digital recording unit	139.95
MC-43S Extra 8-pin hand mic w/up-down	59.95
MC-60A 8-pin amp desk mic w/up-down	149.95
MC-80 8-pin electret desk mic w/up-down	109.95
MC-90 2-head DSP desk microphone	239.95
SP-950 External spkr w/audio filters	149.95
VS-2 Voice synthesizer	69.95
YK-88CN-1 270 Hz CW filter (1st IF)	129.95
YK-88SN-1 1.8 KHz SSB filter (1st IF)	129.95
TS-870S 9-band Xcvr/Rcvr/IFDSP/tuner	2299.95
PS-40 Switching power supply	199.95
PS-52 Heavy duty power supply	269.95
DRU-3A Dig recording unit; TS-870/570	129.95
MC-43S Extra 8-pin hand mic w/up-down	59.95
MC-60A 8-pin amp desk mic w/up-down	149.95
MC-80 8-pin electret desk mic w/up-down	109.95
MC-90 2-head DSP desk microphone	239.95
SO-2 TCXO unit	179.95
SP-31 External speaker	99.95
VS-2 Voice synthesizer	69.95
TS-570D(G) 9-band Xcvr/Rcv/AFDSP/tuner/mic †	1099.95
TS-570S(G) 9-band Xcv/6m/Rcv/AFDSP/tune/mic †	1319.95
PS-40 Switching power supply	199.95
PS-53 Heavy duty 22.5A power supply	249.95
DRU-3A Dig recording unit; TS-570/870	129.95
KSS Sky command system; 570/870 .special order	899.95
MB-430 Mobile mounting bracket	49.95
MC-43S 8-pin hand mic w/up-down	59.95
MC-60A 8-pin amp desk mic w/up-down	149.95
MC-80 8-pin electret desk mic w/up-down	109.95
MC-90 2-head DSP desk microphone	239.95
PG-2Z Heavy duty DC cable	37.95
SO-2 TCXO unit	179.95
SP-23 External speaker	89.95
VS-3 Voice synthesizer	39.95
YK-88C-1 500 Hz CW filter	129.95
YK-88CN-1 270 Hz CW filter	129.95
YK-88SN-1 1.8 KHz SSB filter	129.95
TS-50S Compact HF Xcvr/SW Rcvr/mic/mt †	699.95
PS-40 Switching power supply	199.95
PS-53 Heavy duty 22.5A power supply	249.95
AT-50 External HF auto tuner	329.95
PG-4M 18' extension cable for AT-50	29.95
IF-10D Computer interface	89.95
MB-13 Deluxe quick release mobile mt ...D	19.95
MC-47 Extra multi-func 8-pin hand mic	59.95
MC-60A 8-pin amp desk mic w/up-down	149.95
MC-80 8-pin electret desk mic w/up-down	109.95
PG-2Y DC cable	39.95
SO-2 TCXO unit	179.95
SP-23 External speaker	89.95
TC-50/50Case Travel case for TS-50S/60S	89.95
YK-107C 500 Hz CW filter	129.95
7-pin DIN plug	4.95
8-pin DIN plug	6.95
13-pin DIN plug	9.95
E30-1765-08 Adapt cord; MC85 - 8-pin Xcvr Δ	19.95
HS-5 Deluxe headphones	79.95
HS-6 Lightweight headphones	59.95
LF-30A 1kw PEP low pass filter	64.95
MC-43S 8-pin hand mic w/up-down switch	59.95
MC-60A 8-pin amp desk mic w/up-down	149.95
MC-80 8-pin electret desk mic w/up-down	109.95
PG-3B 15A DC line noise filter	29.95
PG-3G 25A DC line noise filter	51.95
SP-50B High quality external mobile speaker	55.95
TSU-5 Prog CTCSS decoder; TS-790A .....Δ	64.95
TU-7 Prog encoder; 2550/751A/TW-4100A .Δ	54.95
TU-8 CTCSS tone unit; TS-450S/690S .....Δ	54.95
UT-10 10w 1.2 GHz module; TS-790A .....Δ	549.95

Kenwood - continued

	AES Price
VP-1 Hvy duty chrome spg, bpr mt for MA-5 D	9.95
YG-455C-1 500 Hz CW filter; TS-450/690 ..Δ	149.95
YK-88CN 270 Hz CW filter; R-5000 .....D	69.95
YK-88S-1 2.4 KHz SSB filter; TS-450/690 ...D	69.95
TM-642AD 50w 2m/25w 220FM/backlit TTP mic	739.95
TM-742AD 50w 2m/35w 440 FM/backlit TTP .†	649.95
DFK-3 9' separate display cable kit	26.95
DFK-4 13' remote cable kit	59.95
DFK-7 Deluxe 22' remote cable kit	89.95
MB-14 Quick release mobile mount .....D	19.95
MJ-88 Modular to 8-pin mic adapter	30.95
MJ-89 Modular mic switch	69.95
TSU-7 CTCSS decoder unit	59.95
UT-50S 50w 6m unit	329.95
UT-220S 25w 220 MHz unit	329.95
UT-440S 35w 440 MHz unit	299.95
UT-1200 10w 1.2 GHz unit	399.95
DFK-4B 13' rem cable kit; TM-733A .....D	29.95
DFK-7B Dlx 22' rem cbl kit; TM-733A .....D	49.95
TM-D700A 50w 2m/35w 440 FM/1200/9600 †	629.95
MJ-88 Modular to 8-pin mic adapter	30.95
MJ-89 Modular mic switch	69.95
PG-4X 13' extension cable kit	69.95
PG-5A Packet data cable	15.95
VS-3 Voice synthesizer	39.95
TM-G707A 50w 2m/35w 440 FM/TTP mic ..†	339.95
TM-V7A 50w 2m/35w 440 FM Xcvr/TTP mic †	449.95
DFK-3C 9' separate display cable kit	44.95
DFK-4C 13' remote cable kit	64.95
DFK-7C Deluxe 23' remote cable kit	99.95
MJ-88 Modular to 8-pin mic adapter	30.95
MJ-89 Modular mic switch	69.95
PG-4S PC interface cable	32.95
PG-5A Packet data cable	15.95
VS-3 Voice synthesizer	39.95
TM-331A 25w 220 FM Xcvr w/TTP mic .....†	469.95
KQT-8/TSU-6 Prog CTCSS decoder	49.95
TM-541A 10w 1.2 GHz FM Xcvr/TTP/encoder	449.95
DTU-2 Digital paging unit .....D	14.95
KQT-8/TSU-6 Prog CTCSS decoder	49.95
TM-261A 50w 2m FM Xcvr w/TTP mic .....†	169.95
TM-461A 35w 440 FM Xcvr w/TTP mic	439.95
TSU-8 CTCSS decoder	59.95
MC-45DM Extra multi-function TTP mic .....D	79.95
MC-52DM Back-lit TTP mic;241/331/441/541	79.95
MC-53DM Back-lit TTP mic;251/733/742/255/V7A	79.95

Accessories for TH-75A/77A/25AT/26AT

BT-6 6-AA battery case .....D	$ 19.95
PG-3E Cig cord w/filter for DC-1 .....D	19.95

Accessories for TH-28A/48A/78A

BC-15A Rapid cgr; PB-13/14/17/18 .....D	$ 19.95
ME-1 Memory expansion; also for TM-251A D	4.95
SC-33 Soft case; TH-28A/48A/PB-13/BT-8 ..D	4.95
SC-34 Soft case; TH-28A/48A/PB-17/18 .....D	4.95
SC-36 Large soft case; TH-78A .....D	.99
TH-22ATH 5w 2m FM HT/batt/KSC-8A/TTP	229.95
TH-42AT 2.5w 440 FM HT/batt/cgr/TTP ....Δ	269.95
TH-79AKSS 5w 2m/440 HT/batt/cgr/TTP	379.95
BT-9 4-AA battery holder	29.95
EMC-3 Lapel clip mic/ear piece	29.95
HMC-3 VOX/boom mic headset	59.95
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79	26.95
KSC-14 2-pack rapid charger	87.95
PB-33 1200ma 6v battery	89.95
PB-34 600ma 9.6v (5w) battery	89.95
PG-2W DC cable w/fuse	17.95
PG-3J Cig lighter cord w/filter	36.95
PG-4R SkyCommand II cbl; 79AKSS/570/870	79.95
SC-41 Soft case; TH-79A(D) w/PB-32 .....D	4.95
SC-43 Soft case; TH-79A(D) w/PB-33/34 D	4.95
SMC-32 Mini water resist rt angle spkr/mic	52.95
SMC-33 Speaker/mic w/remote control	65.95
SMC-34 Spkr/mic w/vol cont/function keys	39.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Kenwood - continued

	AES Price
TSU-8 CTCSS decoder; TH-22/42AT	59.95
WR-2 Water resistant bag; TH-22/42AT	29.95
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP .†	249.95
TH-D7A 5w 2m/440 FM HT/1200/9600 TNC .. †	399.95
BC-19 Rapid charger	64.95
BT-11 4-AA battery holder	17.95
EMC-3 Lapel clip mic/ear piece	29.95
HMC-3 VOX/boom mic headset	59.95
J29-0631-13 Belt clip for batt; D7A/G71A .	4.95
PB-38 650ma 6v battery	44.95
PB-39 600ma 9.6v (5w) battery	57.95
PG-2W DC cable w/fuse	17.95
PG-3J Cig lighter cord w/filter	36.95
PG-4P Computer control cable; TH-G71A ..	32.95
PG-4R SkyCommand II cable; D7A/570/870	79.95
PG-4V VC-H1 connection cable TH-D7A	49.95
PG-4W PC software/cable; TH-D7A	55.95
SC-45 Soft case for TH-G71A/PB-38/39	15.95
SC-47B Black soft case for TH-D7A	15.95
SC-47OR Orange soft case for TH-D7A	15.95
SMC-32 Mini water resist rt angle spkr/mic .	52.95
SMC-33 Speaker/mic w/remote control	65.95
SMC-34 Spkr/mic w/vol cont/function keys	39.95
WR-2 Water resistant bag; TH-G71A	29.95
BT-10 6 AA alk batt case; TH-235A .....D	2.95
PB-36 7.2v 950ma nicad batt; TH-235A ....D	9.95
PB-37 12v 950ma (5w) nicad; TH-235A .....D	9.95
EZ-PASS WIN 95 No-code tech study package	34.95
Primer Welcome to Amateur Radio primer	.50
VC-H1 Visual Communicator SSTV unit ....†	309.95
E30-3352-08 16-pin DIN/unterminated cbl	44.95
E59-0407-08 16-pin DIN plug only	29.95
KCT-24S VCH-1 to PC software/cable	58.95
PG-4T VC-H1 to Kenwood FM mobile cable	49.95
SC-46P Protective case	18.95
VC-IS Software w/cable for VC-H1 to PC .D	29.95
EK-AMA1 Portable emergency kit special order	5399.95

CONSUMER ELECTRONICS

TKM-707 150w HF marine SSB Xcvr spec order	1249.95
KAT-1 HF marine auto ant tuner ...spec order	569.95
UBZ-LH14BK Family radio svc black handheld	99.95
EMC-3 Label clip mic/ear piece	29.95
HMC-3 VOX/boom mic headset	59.95
SMC-34 Spkr/mic/vol cont/function keys	39.95
UBC-3 Nicad desk charger	36.95
UPB-2 Nicad battery pack	24.95
USC-4B Black nylon case; UBZ-LF14 .....Δ	9.95
USC-5B Black nylon case; UBZ-LH14BK	15.95
UBZ-AL14BK Family radio svc black handheld	49.95

KOSS (KOS)

GT/3 Stereophone w/covered headband .....D	$ 6.95
GT/4 Stereophone w/volume control .....D	12.95
HD/30 Dual amplified stereo speakers .....D	16.95
HD/33 Computer stereophone/vol control ....Δ	4.95
HP/6 Port stereophone w/vol/adj headband ..	9.99
KTX/2 Portable stereophone w/adj headband	9.99
KTX/4 Collapsible stereophone w/vol control .	14.99
QZ/99 Noise reduction stereoph w/mono sw .	59.99
QZ/2000 Active noise reduction stereophone	179.95
SB/30 Communications headset w/mic	49.99
SP/5 Sidefiring yellow stereophone	7.99
SW/5 Single communications headset	14.99

LAKEVIEW (LAK)

9175 75m 7' Hamstick antenna	$ 24.95
9140 40m 7' Hamstick antenna	24.95
9130 30m 7' Hamstick antenna	24.95
9120 20m 7' Hamstick antenna	24.95
9117 17m 7' Hamstick antenna	24.95
9115 15m 7' Hamstick antenna	24.95
9112 12m 7' Hamstick antenna	24.95
9110 10m 7' Hamstick antenna	24.95
9106 6m 4.5' Hamstick antenna	24.95

Lakeview - continued

	AES Price
901 Dipole mount for 2 Hamsticks	13.95
IM-1 Inducti-match for 75-12m mobile ant ..	12.95

LARSEN (LAR)

27-31 MHz ANTENNA

NMO-27B 10m black ant only (no mount)	$ 36.95
NMO-27C 10m ant only (no mount)	33.95

47-54 MHz ANTENNA

NMO-50B 6m black ant only (no mount)	$ 36.95
NMO-50C 6m ant only (no mount)	33.95

144-174 MHz ANTENNAS

NMO-150B 2m black ant only (no mt), 3 db .	$ 33.95
NMO-150C 2m ant only (no mount), 3 db	30.95

220-265 MHz ANTENNAS

NMO-220B 220 black ant only (no mt), 3 db	$ 36.95
NMO-220C 220 ant only (no mount), 3 db	30.95

440-460 MHz ANTENNAS

NMO-440B 440 black ant only (no mt), 5 db	$ 35.95
NMO-440C 440 ant only (no mount), 5 db	29.95
MM-2/70 2m/440 ¼ wave/2db mag mt ant ..	46.95
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db ...	60.95
NMO-2/70C 2m/440 ant (no mount), 2/4db ...	56.95
NMO-2/70-SH 2m/440 ant (no mt), ¼ wv/2db	36.95
NMO-012 135-160/148-173 2.5db (no mt) .....D	19.95
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt)	11.95
NMOQ-Spec-B 136-512 black ¼ wv ant (no mt)	15.95
NMOQ-Spec-K 136-512MHz ¼ wv ¾" hole ant	27.95
NMOQ-2/70-B 2m/440 ¼ wv cell look ant (no mt)	34.95
NMO-1290B 1.2 GHz black ant only (no mt) D	19.95

ON GLASS ANTENNAS

KG-144-UD-PL 2m 3 db on glass antenna ...	$ 76.95
KG-220-UD-PL 220 3 db on glass antenna ..	76.95
KG-440-UD-PL 440 2.4 db on glass antenna	70.95
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass .	106.95
KG-Reinstall Reinstall kit for KG-ants	6.95

KULDUCKIES - For Hand-helds

KD4-146 2m BNC Kulduckie	$ 19.95
KD4-2/70 2m/440 BNC Kulduckie	31.95
KD4-222 220 BNC Kulduckie	19.95
KD14-445 440 ¼ wave BNC Kulduckie	18.95
KD4-146-HQ 2m part helical, part ¼ wave BNC	24.95
KD14-2M-HW 2m ½ wave BNC antenna	37.95
KD14-440-HW 440 ½ wave BNC antenna	37.95

ACCESSORIES

A-7 Adapter for NMO ant on NLA mount .....D	$ 4.95
AD-2/70 100w 2m/440 duplexer .....Δ	79.95
BSA-K Base mounting kit for mobile ant	50.95
NMO-B38 NMO mt hdw/A-7 NLA adapter	13.95
NMO-CAP-B Black rain cap for NMO mount ..	4.95
NMO-K ¾" hole mt w/coax for NMO ant	15.95
NMO-MM Magnet mt, coax for NMO ant	31.95
NMO-TLP Low profile tnk lid mt, coax; NMO ant	29.95
PO-K Roof mt, coax for SO-239 ant	27.95
PO-MM Magnet mt, coax for SO-239 ant	34.95
PO-TLM Trunk lip mt, coax for SO-239 ant	28.95
RG-SS Extra super seal NMO gaskets (3)	3.95
SPRING Shock spring	10.95
TMB-34 Trunk mtg bkt for NMO antenna	5.95
TMB-34B Black trunk mtg bkt for NMO ant ..	7.95
W-2/70B 2m/440 black replacement whip ...	26.95
W-490 49" replacement whip	9.95
W-490B Black 49" replacement whip	12.95

LOGSAT (LOG)

Logsat Professional Satellite tracking CDROM	$ 69.95

M² (MSQ)

7&10-30LP8 7&10-30MHz 6db 8el 29'7" bm LP T*	1289.95
10-30LP8 10-30MHz 6db 8el 29'7" bm LP T*	1159.95
17-30LP7DX 17-30MHz 6.5db 7el 23'8" boom LP	799.95
40M-1LDX 6.9-10 MHz rotatable dipole	419.95
20M-4DX 20m 7.4db 4el 34' boom beam	529.95

M² - continued

	AES Price
17M-5DX 17m 8.6db 5el 36' boom beam	529.95
17M-3DX 17m 6.3db 3el 18' boom beam	399.95
15M-4DX 15m 8.5db 4el 33' 8" boom beam .	449.95
12M-4DX 12m 8.6db 4el 27' boom beam	399.95
10M-4DX 10m 8.7db 4el 23' boom beam	399.95
6M-3 6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam	125.95
6M-5X Upgrade Kit; 6M-5 to 6M-5X	61.95
6M-5X 6m 50-50.5 or 51-54 9.4db 5el 18' bm beam	209.95
6M-7 6m 49.5-50.5 10.5db 7el 26'9" bm beam Δ	249.95
6M-7JHV 6m 50-50.4 10.9db 7el 30'8"bm beam	261.95
6M-2WLC 6m 49.7-50.5 11.9db 9el 39' 6" boom T*	461.95
6M-9KHW 6m 50-50.4 12.7db 9el 49' 4" bm beam	499.95
6M-11JKV 6m 50-50.4 14db 11el 69'bm beam T*	749.95
6M-HO-LOOP 6m 50-50.3 4.4db horiz loop ant	94.95
MAST BKT KIT For 6M-HO-LOOP	15.95
2M-4 2m 7.5db 4el 4' boom beam	94.95
2M-7 2m 10.3db 7el 8'10" boom beam	115.95
2M-9FM 2m 145-148 12db 9el 14' 6" bm beam	125.95
2M-9SSB 2m 144-146 12db 9el 14' 6" bm beam	125.95
2M-12 2m 12.8db 12el 19'6" boom beam	167.95
2M-5WL 2m 14.8db 17el 33' boom beam	209.95
2M-18XXX 2m 144-146 15.3db 18el 36'3" bm beam	240.95
2M-8WLHD 2m 144-144.7 17db 21el 55' bm beam	555.95
2M-CP14 2m 10.3db 7h/7v 10'6"bm circ beam	177.95
2M-CP22 2m 12.5db 11h/11v 18'6"bm circ beam	240.95
FG X-Boom Kit For circular antennas, etc.	135.95
2M-XP20 2m 144-146 13.3db 14h/14v 21'6"bm cross pol	209.95
2M5-440XP 2m/440 9/12db 5/10el 5'8" bm beam	167.95
2M-HO-LOOP 2m 144-144.5 4.86db horiz loop	43.95
Big-Foot 4x-mag mt; 2M-HO-LOOP stack/etc	99.95
MAG-KIT Magnet mt kit; single 2m-HO-LOOP	20.95
MAST BKT KIT For 2M-HO-LOOP	15.95
STACK-KIT Stack kit for 2 2m-HO-LOOP's	61.95
TOP BKT KIT For 2M-HO-LOOP	20.95
EB-144 2m Eggbeater omni/hor/rhc overhead	136.95
RK-2M 2m 6db overhead reflector kit/base mt	39.95
222-7EZ 220 9.8db 7el 5' 8" boom beam	94.95
222-10EZ 220 12db 10el 9' 9" boom beam ..	104.95
222-5WL 220 15.2db 15el 23'3" boom beam	167.95
222-7WL 220 16.4db 23el 32'5" boom beam	209.95
222-HO-LOOP 220-224 4.75db horiz loop ant ..	43.95
MAG-KIT Magnet mt kit; single 222-HO-LOOP	20.95
440-470-5W 440-470 7.8db 5el 2'2"bm beam	136.95
420-50-11 432 11.3db 11el 5' bm rear mt beam	94.95
440-18 432 14.5db 18el 11'4" boom beam ..	125.95
440-21ATV 432 15.9db 21el 14'6" bm ATV beam	146.95
432-9WL 432 17.3db 28el 21' boom beam ...	177.95
432-13WLA 432 18.6db 38el 30'8" bm beam	240.95
436-CP30 432 14.5db 15h/15v 9'9"bm circ beam	240.95
436-CP42UG 432 16.8db 21h/21v 18'10"bm circ	282.95
FG X-Boom Kit For circular antennas, etc.	135.95
432-HO-LOOP 430-436 5db horiz loop ant ...	43.95
Big-Foot 4x-mag mt; 432-HO-LOOP stack/etc	99.95
MAG-KIT Mag mt kit; single 432-HO-LOOP	20.95
STACK-KIT-70CM Stack kit; 2 432-HO-LOOP's	61.95
TOP BKT KIT For 432-HO-LOOP	20.95
EB-432 432 Eggbeater omni/hor/rhc overhead	125.95
RK-70CM 432 6db overhead reflector kit/base mt	39.95
902-6W 900MHz 10db 6el 2' boom beam	62.95
902-10EZ 900MHz 12.6db 10el 3'5"bm beam	94.95
902-18EZ 900MHz 14.8db 18el 5'4"bm beam	136.95
23CM-22EZ 1.2GHz 16db 22el 5'2" bm beam	94.95
23CM-35 1.2GHz 18.4db 35el 10' bm beam ..	156.95
2M-2-Port-PD 2m 2-port type N power divider	59.95
70CM-2-Port-PD 432 2-port N power divider	59.95
23CM-2-Port-PD 1.2GHz 2-port N power divider	59.95
OR-2800PDC 35 sq ft azimuth rotor w/control box	1429.95
RC-2800PDC Control box only special order	395.95
RC-2800PP Control box; prop pitch spec order	499.95
FAST MAST 20' extended portable alum mast	167.95

***These items are drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge**

M² - continued

AES Price

when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.

MFJ ANTENNA TUNERS (MFJ)

989C	Dlx 3kw PEP w/roller inductor	$319.95
986	3kw PEP w/roller inductor	299.95
962D	1.5kw PEP/meter/switch/balun/roller ind	249.95
969	HF & 6m 300w roller inductor tuner	189.95
949E	300w/meter/dummy/sw/balun	139.95
1312C	12vdc 300ma ps 2.5mm coaxial; 949E	14.95
948	300w/meter/switch/balun	119.95
941E	300w tuner w/meter, switch, balun	109.95
945E	300w tuner w/meter plus 6m	99.95
20	Mobile bracket for 945E	4.95
901B	Versa Tuner 200w ant tuner	79.95
910	80-10m mobile antenna matcher	19.95
1601O	200w random wire tuner	49.95
903	6m antenna tuner	49.95
906	6m antenna tuner w/wattmeter	79.95
914	Auto tuner extender	59.95
921	2m/220 300w PEP tuner/SWR/wattmeter	69.95
922	2m/440 150w tuner/SWR/wattmeter	79.95
924	440 MHz 300w PEP tuner/SWR/wattmeter	69.95
934	300w tuner w/artificial ground	169.95
940A	10m antenna tuner/SWR/wattmeter	79.95

MEMORY KEYERS

451	Dedicated CW keyboard w/memory	$ 99.95
451X	Morse keyboard interface only	89.95
452	CW keyboard/keyer w/disp/keyboard	129.95
452X	CW keyboard/keyer w/disp, no keyboard	99.95
498	Dlx CW keyboard/keyer w/disp/keyboard	179.95
498X	Dlx CW keyboard w/disp, no keyboard	159.95
490	492 keyer/Bencher paddle combination	184.95
490X	492 keyer for use w/Bencher or 564	99.95
564	Deluxe iambic paddle for 490X	49.95
492	192 char menu driven memory keyer	89.95
80	8000 char memory expansion for 492	19.95
492X	Memory keyer w/8000 char expansion	104.95
78	Remote control for 492/492X	29.95
493	32K char menu driven mem keyer	129.95
79	Remote control for 493	29.95
551	IBM AT-101 keyboard for 493	39.95
5409	9-pin serial port 6' cable for 493	12.95
5425	25-pin serial port 6' cable for 493	12.95

ELECTRONIC KEYERS

407D	Deluxe electronic keyer	$ 69.95
401D	Econo keyer	49.95

KEYER/PADDLES

422D	Keyer/Bencher paddle combination	$154.95
422DX	Keyer only	79.95
441	SlimLine econo keyer	59.95
442	SlimLine keyer/Bencher paddle combo	149.95
442X	SlimLine keyer only	89.95
447	SlimLine deluxe keyer	79.95
564	Deluxe iambic chrome paddle	49.95
564B	Deluxe iambic black paddle	49.95

COMPUTER INTERFACES

1224	Interface	$ 99.95
1265	Disk software for VIC/C64; 1224	19.95
1285	Software for IBM; 1224	19.95
1264B	Tape software; VIC/C64; 1225 Δ	.99
1265B	Disk software; VIC/C64; 1225 Δ	.99
1270C	Packet radio TNC2	119.95
47C	Mailbox 512K mem; 1270/1274 Δ	69.95
2400	2400 baud modem	29.95
9600B	9600 baud modem	99.95
1270CT	Turbo packet w/2400 baud	149.95
1270CQ	Packet w/9600 baud modem	229.95
1276	Packet/Pactor controller	149.95

MFJ - continued

AES Price

1276T	Packet/Pactor Turbo controller	179.95
1278B	Multi-mode controller w/Pactor	279.95
1278B/DSP	Controller w/Pactor & DSP	359.95
45A	32K RAM IC only D	2.95
48	1278 upgrade	24.95
48B	1278B upgrade	24.95
52	TNC2 deviation meter board	29.95
56A	Pactor/mailbox 32K board for 1278B	69.95
56B	Pactor/mailbox 128K board for 1278B	89.95
56C	Pactor/mailbox 512K board; 1278B	139.95
780	DSP data filter for 1278B	89.95
2400	2400 baud modem	29.95
9600B	9600 baud modem	99.95
1278BT	Turbo controller/2400/Pactor	309.95
1282	C64 starter pack	24.95
1282B	Multicom package; C64/128	39.95
1282BD	Multicom 64 disk only Δ	6.95
1284	5¼" IBM starter pack	24.95
1284D	1284 disk only	14.95
1284M	3½" IBM starter pack	24.95
1284MD	1284M disk only	14.95
1284W	MFJCOM for Windows	29.95
1287	Macintosh starter pack D	14.95
1287B	Mac multicom starter pack	49.95
1287D	1287 disk only D	2.95
1287BD	1287B disk only Δ	9.95
1288	Packet terminal program D	6.95
1289	5¼" multicom software for IBM D	24.95
1289D	1289 disks only D	14.95
1289M	3½" multicom software for IBM	59.95
1289MD	1289M disks only	49.95
1289W	Multicom for Windows with cable	59.95
1289WD	Multicom for Windows, less cable	49.95
1293	JVFax/HamCom soft/FJ-1213 D	2.95
1214PC	Multimode interface for IBM	139.95
40B	TNC2 upgrade 32K/RAM D	4.95
40C	TNC2 upgrade 32K	19.95
40E	TNC2 packet encryption EPROM D	6.95
43	Real time clock for TNC	19.95
44	Plug-in scope tuning adapter	19.95
52B	FM deviation/temp/volt meter for TNC	39.95
781	DSP filter for any TNC or controller	119.95
1271	Packet card for C64/128 D	29.95
1272B	TNC to microphone interface	39.95
1272BYH	TNC/mic switch; KAM HF	39.95
1272BYV	TNC/mic switch; KAM VHF	39.95
1272BZ	TNC/mic switch; PK-88 Δ	6.95
1272M	TNC/mic RJ-45 switch; MFJ/PK-900	39.95
1272MYH	TNC/mic RJ-45 switch; KAM HF	39.95
1272MYV	TNC/mic RJ-45 sw; KAM VHF; KPC3	39.95
1273	Packet tuning indicator D	2.95

SSB/CW FILTERS

722	SSB/CW notch filter	$ 79.95
751B	Super tunable CW audio filter	69.95
752C	Dual tunable SSB/CW filter	89.95
784B	Deluxe tuneable DSP filter	229.95
5184	Cable pack for 784B	7.95

PHONE PATCH

624D	Phone patch w/audio VU meter	$119.95

DUMMY LOADS

250	2kw PEP dummy load w/oil	$ 59.95
250X	2kw PEP dummy load, less oil	39.95
21	1 gal industrial xfmr oil for wet dummy	24.95
260C	300w 0-650 MHz dry dummy load	34.95
260CN	300w 0-650 MHz type N dry dummy	39.95
264	1.5kw 0-650 MHz dry dummy load	69.95
264N	1.5kw 0-650 MHz type N dry dummy	79.95

SWR/WATTMETERS

812B	144-220 MHz SWR/FS/wattmeter	$ 34.95
815B	160-6m cross-needle SWR/wattmeter	79.95
816	1.8-30 MHz toroidal SWR/wattmeter	34.95
817	2m/440 cross needle meter	89.95
840	2m 5w wattmeter/dummy load for HT	19.95

MFJ - continued

AES Price

841	2m 5w in-line HT wattmeter/SWR	39.95
844	Compact 2m/440 SWR/wattmeter	69.95
860	1.8-60 MHz cross-needle meter	44.95
862	2m/220/440 cross-needle meter	54.95
864	1.8-60MHz/2m/440 cross needle meter	84.95
870	1.6-60MHz Grandmaster SWR/wattmeter	124.95
872	1.8-200MHz Grandmaster SWR/wattmeter	94.95
873	125-525MHz Grandmaster SWR/wattmeter	104.95
874	1.8-525MHz Grandmaster SWR/wattmeter	159.95

SHORTWAVE ACCESSORIES

306	Car radio SWL converter	$ 89.95
956	LW/MW/SW preselector/tuner	49.95
959B	Receiver ant tuner w/preamp	99.95
1020B	.3-30 MHz indoor active rcv ant	79.95
1022	300KHz-200MHz active rcv antenna	49.95
1024	.05-30 MHz outdoor active rcv ant	129.95
1040B	Deluxe receiver preselector	99.95
1045C	Receiver preselector	69.95

BOOKS

30	Golden Classics book	$ 9.95
31	Oscar book	7.95
32	Packet Made Easy book	9.95
33	Mobile Handbook book	12.95
35	World of Ham Radio book	7.95
36	Shortwave Listeners Guide; Apts/Condos	9.95
37	Ham Communications Circuit Files book	9.95
38	Easy-up Antennas book	16.95
3036	The Packet Radio Operators book	12.95
3101	Fox Hunt Adventure book	7.95
3210	Novice license guide	9.95
3211	Tech Plus license guide	9.95
3212	No code tech license guide	16.95
3213	General license guide	9.95
3214	Advanced license guide	9.95
3215	Extra license guide	9.95
3301	Troubleshooting Antenna & Feedlines book	12.95
3302	73 Dipole and Long-Wire Antennas	12.95
3303	73 Vertical, Beam, and Triangle Ants	12.95
3305	Antennas & Transmission Lines book	19.95
3400	Morse Code: Breaking the Barrier	19.95
3502	Solid State QRP Projects	12.95
3504	FET Principles, Experiments & Projects	16.95
3506	Ferromagnetic-Core Design book	19.95
3507	Practical RF Design Manual	19.95
3508	Radio Components Handbook	29.95
3509	Ladder Crystal Filters	19.95

CLOCKS

105C	24-hour quartz wall clock	$ 19.95
107B	24-hour digital clock	9.95
108B	24/12-hour dual disp digital clock	19.95
112	Deluxe world map clock D	24.95
112B	Deluxe world map clock	24.95
114B	Giant LED desk/wall 12/24-hour clock	59.95
115	DX'er 24-hour analog world wall clock	24.95
116	24/12-hour LED clock/10 minute timer	14.95
116DC	12/24-hour 12vdc LED clock	19.95
118	Giant 24/12 hour LCD clock	24.95
119	Giant 24/12 hour LCD/in temp clock D	39.95
119B	Giant 24/12 hour LCD/in temp clock	49.95
120	Monster atomic clock/temperature/humdity	69.95
123	Eternity solar atomic clock	79.95
125	Calendar 24-hour analog wall clock	29.95
126	Multi-color 12-hr quartz wall/24-hr trim	24.95
128	12/24 hour analog atomic wall clock	59.95
129	24" 12/24 hour analog wall clock	69.95
132AT	12-hour LCD atomic clock	34.95
134AT	24-hour LCD atomic clock	34.95
152	Thermo clock; in/out temp/12/24-hr clock D	24.95
152B	Thermo clock; in/out temp/12/24-hr clock	24.95
181	24/12-hour world map wristwatch	39.95

ANTENNAS

343	1⅛" hole mount for 3/8-24 whip	$ 9.95
1402	2m/440 3/5.5db 16.5" 100w ant only	34.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

MFJ - continued

		AES Price
1412	2m/440 3/5.5db 40" 200w ant only	49.95
1422	2m/440 3.2/5.7db 41.5" 150w ant only	49.95
1432	2m/440 5/7.6db 62.5" 150w ant only	69.95
1436	6m/2m/440 2.15/4.5/7.2db 59" ant only	79.95
333BM	3.5" HiFlux NMO mag mt; not 1436	14.95
333BS	3.5" HiFlux SO-239 magt mt not 1436	14.95
335BM	5" HiFlux NMO mag mt; not 1436	19.95
335BS	5" HiFlux SO-239 mag mt; not 1436	19.95
340	Mirror/luggage pipe clamp mount	34.95
345	Trunk/hatchback lip mount	34.95
1516	2m 15' vertical base antenna	94.95
1522	2m/440 5.5' vertical base antenna	89.95
1524	2m/440 10' vertical base antenna	139.95
1526	2m/440 17' vertical base antenna	179.95
1526N	2m/440 17' N vertical base antenna	179.95
1532N	2m/440/1.2GHz 8.2' N vert base ant	119.95
1536	6m/2m/440 8.2' vertical base ant	144.95
1621	40-10m 54" portable ant w/tuner	89.95
1710	2m ⅜ wave telescopic antenna	9.95
1712	2m/440 telescopic antenna	14.95
1713	2m/440 SuperFlex Thin Duk HT ant	19.95
1713S	2m/440 SuperFlex SMA Thin Duk ant	19.95
1714	2m ½ wave telescopic antenna	16.95
1715	2m/440 SuperFlex gain Thin Duk HT ant	24.95
1715S	2m/440 SuperFlex gain SMA Thin Duk	24.95
1716	2m/440 duck for HT	16.95
1716S	2m/440 SMA duck for HT	16.95
1717	2m/2.15db 440 duck for HT	21.95
1717PL	2m/440 foldover flexi-duck, PL-259	24.95
1717S	2m/2.15db 440 SMA duck for HT	21.95
1718	2m shorty duck for HT D	9.95
1719	2m/440/1.2GHz Midget Duck	19.95
1719S	2m/440/1.2GHz SMA Midget Duck	19.95
1721	2m HT UltraLite mag mt antenna	14.95
1722	2m/440 HT UltraLite mag mt antenna	18.95
1724B	2m/440 magnet mt antenna	16.95
1728B	6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC	29.95
1727	10m magnet mt antenna	39.95
1729	2m/440 magnet mt antenna	34.95
1730	2m pocket roll-up vertical antenna	19.95
1734	2m/440 2.6/6.3db glass mt antenna	39.95
1736	6m J-Pole travel antenna	29.95
1738	2m 2.6db glass mt antenna	29.95
94	Remount kit for 1734/1738	4.95
1740	2m ¼ wave ground plane ant	19.95
1750	2m ⅝ wave ground plane ant	24.95
1752	220 ⅝ wave ground plane ant	24.95
1754	2m/440 ground plane antenna	29.95
1756	6m DX vertical antenna	79.95
1762	6m 6db 3 el 6' boom beam	79.95
1763	2m 3el portable beam	44.95
1764	2 & 6m dual ⅝ super gain base ant	49.95
1768	2m/440 4/7 el beam antenna	79.95
1778	G5RV 160-10m 102' ant (needs tuner)	39.95
1786	Super Hi-Q 10-30 MHz loop/dlx control	349.95
1312B	12vdc 300ma adapter; 1782/1786	14.95
1788	Super Hi-Q 40-15m loop/dlx controller	389.95
1793	80/40/20m vertical antenna	179.95
1796	40/20/15/10/6/2m 10' vertical ant	189.95
1798	80/40/30/20/17/15/12/10/6/2m 20' vert	269.95
1812	2m/440 foldover telescopic HT ant	19.95
1816	2m/440 8.5" flexible/telescopic duck	19.95
1817	2m/440 14.5" flexible/telescopic duck	24.95
1824BB	Cell look alike BNC scanner ant D	6.95
1828B	Magnet mt BNC scanner antenna D	14.95
1828M	Mag mt Motorola plug scan ant D	9.95

CABLES

5020R	MFJ TNC - Yaesu FT50R & compatibles	$ 15.95
5020RYV	KAM VHF/KPC3 - Yae FT50R/comp	15.95
5022	MFJ TNC - Alinco/Standard HT cable	15.95
5022YV	KAM VHF/KPC3 - Ali/Sta HT cable	15.95
5024	MFJ TNC - Ico/Yae/Ali/RS HT cable	15.95
5024B	PK/PacComm/compatible - Ico/Yae/RS	15.95
5024YV	KAM VHF/KPC3 - Ico/Yae/Ali/RS HT cbl	15.95

MFJ - continued

		AES Price
5026	MFJ TNC - Kenwood HT cable	15.95
5026X	PK-232 - Kenwood HT cable Δ	6.95
5026YV	KAM VHF/KPC3 - Kenwood HT cable	15.95
5060	MFJ TNC - Ken/Yae acc 6-pin mini DIN	19.95
5060YQ	KPC9612 - Ken/Yae acc 6pin mini DIN	19.95
5060YV	KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN	19.95
5063	MFJ TNC - Icom HF acc 8-pin DIN	19.95
5063YH	KAM HF - Icom HF acc 8-pin DIN	19.95
5064	MFJ TNC - Icom VHF acc 8-pin DIN D	9.95
5064YQ	KPC9612 - Icom VHF 8-pin DIN	19.95
5064YV	KAM VHF/KPC3 - Ico VHF acc 8pin DIN	19.95
5065	MFJ TNC - Ico IC-706 acc 13-pin DIN	19.95
5065YH	KAM HF - Ico IC-706 acc 13-pin DIN	19.95
5065YV	KAM VHF - Ico IC706 acc 13-pin DIN	19.95
5066	MFJ TNC - Kenwood HF acc 13-pin DIN	19.95
5066YH	KAM HF - Ken HF acc 13-pin DIN	19.95
5080	MFJ TNC - Yaesu 8-pin cable	15.95
5080M	MFJ TNC - Yaesu 8-pin modular	15.95
5080MYV	KAM VHF/KPC3 - Yae 2500M/7400H	15.95
5080MZ	PK-88 - Yae 2500M/7400H D	1.95
5080YH	KAM HF port - Yaesu 8-pin cable	15.95
5080YV	KAM VHF/KPC3 - Yaesu 8-pin cable	15.95
5080Z	PK-88 - Yaesu 8-pin cable D	2.95
5082	Open end - 8-pin mic cable	9.95
5084	MFJ TNC - Icom 8-pin cable	15.95
5084M	MFJ TNC - Icom 8-pin modular	15.95
5084MYH	KAM HF - Icom 8-pin modular	15.95
5084MYV	KAM VHF/KPC3 - Icom 8-pin mod	15.95
5084MX	PK-232 - Ico 8-pin modular Δ	12.95
5084MZ	PK-88 - Ico 8-pin modular D	2.95
5084YH	KAM HF port - Icom 8-pin cable	15.95
5084YV	KAM VHF/KPC3 - Icom 8-pin cable	15.95
5084Z	PK-88 - Icom 8-pin cable D	1.95
5086	MFJ TNC - Kenwood/Alinco 8-pin cable	15.95
5086M	MFJ TNC - Kenwood 8-pin modular	15.95
5086MYV	KAM VHF/KPC3 - Ken 8-pin mod	15.95
5086YH	KAM HF port - Ken/Ali 8-pin cable	15.95
5086YV	KAM VHF/KPC3 - Ken/Ali 8-pin cable	15.95
5088M	MFJ TNC - Radio Shack 8-pin modular	15.95
5088MYV	KAM VHF - RS 8-pin modular	15.95
5088MZ	PK-88 - RS 8-pin modular D	2.95
5205	5-pin DIN open end cable	4.95
5208	Open end - Ico HF/VHF acc 8-pin DIN	9.95
5213	Open end - Kenwood acc 13-pin DIN	9.95
5220R	Open end - Yaesu FT50R/compatibles	9.95
5222	Open end - Ali split HT cable Δ	.69
5224	Open end - Ico/Yae/Ali/RS HT cable	9.95
5226	Open end - Kenwood HT cable	9.95
5268	Open end - modular phone plug cable	9.95
5412	IBM printer cable	9.95
5413	RS-232 6' cable DB-25M-25F	9.95
5414	RS-232 6' cable DB-25M-9F	9.95
5803/10	3' coax jumper cable	5.95

RADIOS/TRANSCEIVERS

8100K	Shortwave regenerative Rcvr kit	$ 69.95
8100W	Shortwave regenerative Rcvr wired	89.95
8121	AM/FM/shortwave portable receiver	39.95
8400K	2m receiver kit	79.95
8400W	2m receiver wired	89.95
9606X	6m FM/data Xcvr w/mic	159.95
8621	5w 2m data radio w/145.01 MHz	119.95
8621X2	APRS ready 2m data radio/144.39	139.95
8631	3w 220 MHz data radio w/223.70 MHz	139.95
4110	Portable AC power supply	49.95
5100	Data radio cable - MFJ/TAPR	15.95
5100X	Data radio cable - PK-232 Δ	4.95
5100YH	Data radio cable - KPC-9612	15.95
5100YV	Data radio cable - KAM/KPC-3	15.95
5106	Open end - 6pin mini Ken/Yae cable	4.95
9015	5w 15m CW Xcvr	169.95
9017	5w 17m CW Xcvr	169.95
9020	5w 20m CW Xcvr	169.95
9030	5w 30m CW Xcvr	169.95

MFJ - continued

		AES Price
9040	5w 40m CW Xcvr	169.95
27	Handle for CW station	4.95
412	Plug-in Curtis keyer	49.95
726	Plug-in audio filter	29.95
971	200w portable ant tuner w/meter	99.95
1770	Portable 15m dipole	39.95
1771	Portable 17m dipole	39.95
1772	Portable 20m dipole	39.95
1773	Portable 30m dipole	39.95
1774	Portable 40m dipole	39.95
4110	Portable AC power supply	49.95
4114	Rechargeable power pack	69.95
9115B	9015 Xcvr/tuner/ps/ant	329.95
9117B	9017 Xcvr/tuner/ps/ant	329.95
9120B	9020 Xcvr/971 tuner/4114 ps/1772 ant	329.95
9130B	9030 Xcvr/tuner/ps/ant	329.95
9140B	9040 Xcvr/971 tuner/4114 ps/1774 ant	329.95
9402X	7w PEP 2m SSB Xcvr w/mic	269.95
9406X	10w PEP 6m SSB Xcvr w/mic	249.95
9410X	20w PEP 10m SSB Xcvr w/mic	249.95
9420X	12w 20m SSB Xcvr w/mic	229.95
9440X	12w 40m SSB Xcvr w/mic	229.95
9475X	12w 75m SSB Xcvr w/mic	229.95
62	Headphone kit D	4.95
415B	SSB Xcvr CW adapter; 9420X/9440X	49.95
416	CW adapter for 9402X/9406X/9410X	49.95
971	200w HF portable ant tuner w/meter	99.95
1770A	10m dipole for 9410X	39.95
1776	6m dipole for 9406X	39.95
4110	Portable AC power supply	49.95
4114	Rechargeable power pack	69.95

ACCESSORIES

1305	5vdc 300ma adapter D	$ 9.95
1312	12vdc 300ma adapter, 2.5mm plug	14.95
1312B	12vdc 300ma adapter, 2.1mm plug	14.95
1312C	12vdc 300ma adapter; 2.5mm coaxial	14.95
1315	12vdc 500ma adapter	14.95
15	HamGear belt loop radio holder	14.95
18	HamGear chest harness/cargo pocket	29.95
92AA01	1300ma AA NiMH cell each	2.99
92AA10	10-pack 1300ma AA NiMH cells	24.95
201	1.5-250 MHz dip meter	109.95
202B	RF noise bridge	59.95
203	160-10m bandswitched dip meter	89.95
204B	Antenna bridge	79.95
206	Antenna current probe	79.95
207	160-10m SWR analyzer	79.95
208	2m SWR analyzer	79.95
209	1.8-170 MHz SWR analyzer	129.95
212	MatchMaker tune up device	79.95
214	Amplifier Saver	49.95
216	Deluxe Amplifier Saver	59.95
217	SWR analyzer, 30-50 MHz Δ	19.95
218	SWR analyzer, 150-170 MHz D	29.95
219B	SWR analyzer, 440 MHz/N/SO-239 adapt	89.95
224	2m FM signal analyzer	149.95
229	270-480MHz SWR analyzer	169.95
249B	1.8-170 MHz SWR analy/LCD counter	219.95
259B	1.8-170 MHz SWR analy/RF res meter	239.95
269	1.8-170+440 MHz SWR analy/RF res mtr	319.95
29C	Pouch w/window; 209/249B/259B	24.95
39/39C	Pouch w/window; 269	24.95
66	1.8-30/30-170 dip coils; 209/249B/259B	19.95
92AA10	10-pack 1300ma AA NiMH cells	24.95
98	Pack of MFJ 39(39C)/66/1315; for 269	54.95
98B	Pack of MFJ 92AA10/39(C)/1315 for 269	77.95
99	Pack of MFJ 29C/66/1315; 209/249B/259B	54.95
99B	Pack of 92AA10/29C/1315; 209/249B/259B	77.95
99C	Pack - 92AA10/1315; 209/249B/259B/269	34.95
731	RFI filter for SWR analyzer	89.95
1315	12vdc 500ma ps for SWR analyzers	14.95
270	Guardian Angel 400w PEP lightning protect	29.95
97	Gas tube plug for 270	9.95

MFJ - continued

	AES Price
281 ClearTone comunications speaker	12.95
285W Mini spkr/mic for Icom IC-W2A Δ	9.95
285W(CC) Mini spkr/mic; Alinco credit card HTs	17.95
286 Speaker mic; Kenwood	15.95
287 Mini spkr/mic; Kenwood	15.95
287L Mini spkr/mic L for Kenwood D	9.95
288I Headset/mic; Icom/ADI/Sta/RS/older Yae	24.95
288K Headset/mic for Kenwood	24.95
288Y Headset/mic; Ico Q7/Yae FT10/50/VX1	24.95
291I Earphone for Icom spkr/mic	4.95
291K Earphone for Kenwood spkr/mic	4.95
292I Earph/mic; Ico/older Yae/compatibles	17.95
292K Earphone/mic for Kenwood HT	17.95
292Y Earphone/mic; Ico Q7/Yae FT10/50/VX1	17.95
293I Rubber flex earloop earbud/mic; Icom	24.95
293K Rubber flex earloop earbud/mic; Kenwood	24.95
293Y Rubber flex earloop earbud/mic; Yaesu	24.95
295I Mini spkr/mic; Icom & compatible HT	15.95
295K Mini spkr/mic; Kenwood & compatible HT	15.95
295Y Mini spkr/mic; Ico Q7/Yae FT10/50/VX1	15.95
296I Spkr/mic w/vol control, PTT lock; Icom	19.95
297 Desk mic with flexible boom	69.95
5397I Cable/8-pin for 297; Icom HF	15.95
5397K Cable/8-pin for 297; Kenwood HF	15.95
5397Y Cable/8-pin for 297; Yaesu HF	15.95
5397MI Cable/RJ-45 for 297; Icom VHF	15.95
5397MK Cable/RJ-45 for 297; Kenwood VHF	15.95
5397MY Cable/RJ-45 for 297; Yaesu VHF	15.95
298I Vox spkr/mic; ADI/Ali/Ico/RS/Sta/Yae	39.95
310 BNC HT antenna window mount clip	14.95
312 BNC HATennaClip antenna mount	14.95
315 Universal Gripmatic HT mount holder	14.95
323 Keep-it-up battery maintainer D	6.95
338S 5" tri-mag mount, SO-239	49.95
338T 5" tri-mag mount, NMO	49.95
341M 17' antenna cable; NMO	19.95
341S 17' antenna cable; SO-239	19.95
382 Deluxe amplified communications spkr	39.95
384 Dlx amp spkr w/speech control knob	29.95
388 Cyber Ear 12db ear amplifier	29.95
392 Deluxe communication headphones	19.95
394 Boom mic/single headphone	74.95
396 Boom mic/headphones	79.95
1709 PTT operator foot switch; 394/396	21.95
5396I Adapter; 394/396 with Ico Xcvr	15.95
5396K Adapter; 394/396 with Ken Xcvr	15.95
5396Y Adapter; 394/396 with Yae Xcvr	15.95
411 Personal Morse Code Tutor D	39.95
413 Basic Code Tutor	39.95
414 Professional Morse Tutor w/LCD	189.95
417 Code Tutor with QSO	59.95
418 Code Tutor with LCD display	79.95
26 Carrying pouch for 418	12.95
434 Deluxe Voice Memory Keyer	169.95
73 Remote control head w/cable for 434	29.95
462B RTTY/ASCII/CW/AMTOR Rcvr multi-reader	169.95
5162 Receiver cable for 462B	4.95
550 Hand key	7.95
552 CW interface for 2m HT	79.95
554 Deluxe CW practice oscillator	79.95
554X Dlx oscillator w/281 spkr/550 key	99.95
557 Code oscillator w/key	29.95
631 Trickle wall charger; NiMH/nicad AA	9.95
632 Rapid charger; NiMH/nicad AA/AAA	19.95
641-I2 Battery charger; Icom BP-131/132	49.95
10-BCI-2 Charger cup; Icom BP-131/132	12.95
641-I3 Battery charger; Icom BP-173/180	49.95
10-BCI-3 Charger cup; Icom BP-173/180	12.95
641-K Battery charger for Kenwood D	49.95
641-Y2 Batt cgr;Yaesu FNB-10/11/12/17/27	49.95
10-BCY-2 Cgr cup;Yae FNB-10/11/12/17/27	12.95
641-Y3 Battery charger;Yaesu FNB-31/33	49.95
10-BCY-3 Charger cup; Yaesu FNB-31/33	12.95
641-Y4 Batt cgr;Yaesu FNB-40/41/V47/49	49.95

MFJ - continued

	AES Price
10-BCY-4 Cgr cup;Yae FNB-40/41/V47/49	12.95
662 Simplex pocket repeater	79.95
701 Toroid RFI filters pack of 4	14.95
702 200w low-pass filter	24.95
704 1kw low-pass filter	49.95
711 High pass filter	24.95
713 2m HT intermod filter	59.95
714 2m mobile intermod filter	59.95
762 81db 170MHz BNC attenuator	69.95
801 Super compact field strength meter	19.95
802 Bipolar field strength meter	39.95
802R Field strength remote meter	24.95
802RX Field strength/remote meter combo	59.95
805 RFI current detector meter	79.95
850 AC line voltage monitor	19.95
852 Power line noise current meter	89.95
886 Pocket frequency counter	109.95
912 W9INN remote balun	49.95
916 2m/440 duplexer	29.95
931 Artificial ground unit	89.95
1025 Noise canceling antenna	149.95
1026 Deluxe noise canceling unit w/antenna	169.95
1046 1.6-33MHz receiver passive preselector	89.95
1048 1.6-33MHz Xcvr passive preselector	109.95
1112 Multiple DC outlet	34.95
1116 Dlx multiple DC outlet	49.95
1117 High current multiple DC outlet	54.95
1118 Dlx high current multiple DC outlet	74.95
1213 Interface for JVFAX/HamComm	49.95
1266 C64 disk code tutor program D	1.95
76 1266/67 interface brd; kyr/keyboard D	.69
1268 IBM PC memory keyer Δ	4.95
1269 IBM code tutor D	14.95
1281 IBM Easy-DX logging program D	24.95
1292 Video digitizer for IBM Δ	49.95
1611 Tech theory tutor software; IBM D	4.95
1632 General theory tutor software; Mac D	4.95
1634 Extra theory tutor software; Mac D	1.95
1680Y Windows software package; Yaesu D	39.95
1682 Packet Windows software D	9.95
1683I Rig Windows software for Icom	29.95
5383I Icom Xcvr interface cable	49.95
1683K Rig Windows software for Kenwood	29.95
5383K Kenwood Xcvr interface cable	49.95
1683Y Rig Windows software for Yaesu	29.95
5383Y Yaesu interface cable, std 6-pin DIN	49.95
5383YB Yaesu interface cable, mini 6-pin DIN	49.95
1700B Combination ant/xmtr switch	79.95
1701 6-position coax switch	49.95
1702C 2-pos coax switch/lightning protect	24.95
1702CN 2-pos 1.1GHz N switch/lightning protect	34.95
1704 4-pos 500 MHz switch/lightning protect	64.95
1704N 4-position type N switch	74.95
4035MV Dlx 30A adjustable ps, 35A surge	139.95
4125MV MightyLite 22A 3.5 lb switch ps, 25A surge	99.95
4225MV MightyLite 22A switching ps, 25A surge	139.95
4245MV MightyLite 40A switching ps, 45A surge	189.95
4312 12A power supply w/cig lighter socket	69.95
4322 22A power supply w/cig lighter socket	99.95
5002 Digital/analog breadboard trainer spec order	329.95

MG Electronics (MGE)

HFS-1 10w mobile spkr, 3.5mm plug D	$ 19.95

MAGELLAN (MAG)

GPS-300 GPS receiver	$ 99.95
GPS-315 12 ch GPS receiver	149.95
GPS-320 12 ch GPS receiver	199.95
730275 External power cable w/cig adapter	14.99
730277 PC cable/cig adapt; GPS-315/320	39.99
00-09018-000 PC ext pwr cig cbl; 2000XL Δ	9.95
00-69007-000 Ext pwr/data module; 2000XL Δ	39.95
GPS ColorTRAK 12 ch color GPS/carry case	279.95
GPS Tracker 12 ch GPS w/wrist strap D	199.95

Magellan - continued

	AES Price
00-19044-000 Low profile external ant	95.95
00-19060-000 Power/data cable	24.99
00-19067-000 PC cable w/cig adapter	39.99
Meridian XL GPS/plot/detach ant/case D	219.95

MAHA (MAH)

AA-FB 1.2v 1400ma AA NiMH batt cell w/tabs ea	$ 2.99
AA-T 1.2v 1400ma AA size NiMH batt cell ea	2.99
AA-155 1.2v 1550ma AA size NiMH batt cell ea	3.99
AAA-T 1.2v 650ma AAA size NiMH batt cell ea	2.99
MH-2A4 Slow charger for 4 max AA NiMH D	9.95
MH-C124S Reg cgr; 1-4 AA/AAA NiMH/NiCD	9.95
MH-C204F Quik cgr/condi; 2/4 AA/AAA NiMH/NiCD	24.95
MH-BP-7 900ma 13.2v Icom nickel hydride	69.95
MH-BP-8 1200ma 8.4v Icom nickel hydride	59.95
MH-BP-8H 1800ma 8.4v Icom nickel hydride	69.95
MH-BP-83 1200ma 7.2v Icom nickel hydride	49.95
MH-BP-132B 1200ma 12v Ico blk nick hyd/mic	59.95
MH-BP-132G 1200ma 12v Ico gray nick hyd/mic	59.95
MH-BP-173 650ma 9.6v Icom nickel hydride	69.95
MH-BP-180 1000ma 7.2v Icom nickel hydride	49.95
MH-BP-196M 1350ma 9.6v Icom nick hydride	49.95
MH-BP-199 700ma 6v Icom nick hydride/clip	55.95
MH-BP-200 680ma 9.6v Icom nick hydride/clip	59.95
MH-CNB-152 1000ma 12v Sta nickel hydride	59.95
MH-CNB-153 1300ma 7.2v Sta nickel hydride	49.95
MH-FNB-12 900ma 12v Yaesu nickel hydride	59.95
MH-FNB-17 900ma 7.2v Yaesu nickel hydride	49.95
MH-FNB-27 900ma 12v Yaesu nickel hydride	59.95
MH-FNB-31 650ma 4.8v Yaesu nickel hydride	49.95
MH-FNB-38 650ma 9.6v Yaesu nickel hydride	59.95
MH-FNB-40H 650ma 7.2v Yae nick hyd/ spg clip	59.95
MH-FNB-41 900ma 9.6v Yae nick hyd/spg clip	55.95
MH-FNB-V47 1800ma 7.2v Yae nick hyd/spg clip	69.95
V47 Belt Clip Spring loaded belt clip for Yae	9.95
MH-PB-8 1300ma 12v Kenwood nickel hydride	62.95
MH-PB-17 1300ma 12v Kenwood nickel hydride	59.95
MH-PB-18 1300ma 7.2v Ken nick hyd; wall cgr only	49.95
MH-PB-32 1000ma 6v Kenwood nickel hydride	47.95
MH-PB-34 900ma 9.6v Kenwood nickel hydride	57.95
MH-PB-39 1050 ma 9.6v Ken nickel hyd/clip	59.95
MH-PB-39H 1800ma 6v Ken nickel hyd/clip	59.95
MH-C777 Univ cgr/conditioner; nicad/nimh	49.95
MHS-CW4 Clip-leads for external charging	3.99
MH-C888 Univ drop-in rapid cgr/cond; nicad/nimh	59.95
MHS-C800U External charger pin shell	14.95
MHS-C801 Cup; ICW32A/TH22/79/FT10/50	7.95
MHS-C802 Cup; IC02AT/TH78/FT470/530	7.95
MHS-C803 Cup; Kenwood TH-D7A/G71A	7.95
MHS-C804 Cup; Icom IC-T8A/T81A	7.95
MHS-C805 Cup; Yaesu FT-11/41/51R	7.95
MH-101-I1 Cgr;Ico157/160/174/131/2/Mah 132B/G D	29.95
MH-101-I3 Cgr;Ico 171/172/173/180/Mah BP173 D	39.95
MH-101-Y1 Cgr;Yae 10/11/12/17/25/27/Mah 12/27 D	39.95
MH-101-Y2 Cgr;Yae FNB31/38/Mah MHFNB38 D	39.95
MH-800K 500mw spkr/mic w/clip; Kenwood	19.95
MH-800S 500mw spkr/mic/clip; Ali/Ico/Sta/Yae	19.95
MH-800Y 500mw spkr/mic; Yae FT50/VX1R	24.95
MH-A101 5/35w 2m FM amplifier	69.95
MH-A102 5/35w 2m FM/SSB amp/preamp	89.95
MH-A103 5/50w 2m FM/SSB amp/preamp	119.95
MH-A104 5/100w 2m FM/SSB amp/preamp	229.95
MH-A201 5/45w 2m//5/35w 440 FM amp	159.95
MH-A301 5/50w 2m HT dock boost amp/pre	115.95
MH-A302 5/45//5/35w 2m/440 HT dock boost	165.95
MHS-I1 Ico 2G/02/2/32 adapter; A301/302	9.95
MHS-I2 Ico 2SAT/W2 adapter; A301/302	9.95
MHS-I3 Ico 2GXAT/W21AT adapt; A301/302	9.95
MHS-I4 Ico W32/31/T7/22 adapt; A301/302	11.95
MHS-I5 Ico T8A/T81A adapter; A301/302	11.95
MHS-K1 Ken 25/26/75/77 adapt; A301/302	9.95
MHS-K2 Ken TH22/79 adapter; A301/302	9.95
MHS-K3 Ken G71A/D7A adapt; A301/302	11.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Maha - continued

		AES Price
MHS-S1	ADI/Standard adapter; A301/302	9.95
MHS-Y1	Yae 23/411E/470 adapt; A301/302	9.95
MHS-Y2	Yae 26/415/530 adapt; A301/302	9.95
MHS-Y3	Yae FT11/41/51 adapt; A301/302	11.95
MHS-Y4	Yae FT10/40/50 adapt; A301/302	11.95
MH-VOX-K	Deluxe VOX spkr/mic for Kenwood	39.95
MH-VOX-S	Dlx VOX spkr/mic; Ali/Ico/Sta/Yae	39.95

MALDOL (MAL)

ARD-12	2m/440 4.3/6.8db 48.8" mobile ....Δ	$ 39.95
ARS-50	6m 1/4 wave 61.2" mobile .....Δ	29.95
ARS-440	440 5.5db 38.4" mobile ant .....Δ	19.95
ARS-440B	Black 5.5db 38.4" mobile .....Δ	19.95
EX-110	2m/440 3/5.5db 37.8" mobile ant ...Δ	24.95
HS-702S	2m/440 0/3.2db 17.6" duck .....Δ	14.95
VM-2HP	2m 43.2" 3db 300w mobile ant ...Δ	14.95
VM-727CR	2m/440 41.6" 3.8/6.2db mob ...Δ	24.95

MAXON (MAX)

27-KC	Docking handheld/AM Mobile CB .....D	$ 49.95
FRS-114	FRS handheld .....D	39.95
WTA-9F	Ear speaker; FRS-114 .....Δ	.99
GMRS-21X	1w 2ch GMRS/batt/cgr/AA holder D	119.95
MX-49FX	5 ch 49 MHz ear mic Xcvr	49.95
MX-49HX	5 ch 49 MHz boom mic/headset Xcvr ..	49.95
MX-49SX	49 MHz boom mic/headset Xcvr	29.95
PC-50	5ch 49MHz hand-held/PTT/VOX headset	49.95
WX-70	Weather monitor/alert w/ps	39.95

MIDLAND (MID)

23-505	1.5-150MHz dual meter SWR/power .	$ 19.95
74-109	Weather/hazard alert radio w/ps	39.95
74-200	SAME weather/hazard alert radio/ps Δ	59.95
74-210	SAME weather/hazard alert radio/ps	89.95
75-510XLB	Family radio handheld/batts/cgr D	79.95
22-410	Speaker/mic for 75-510XLB .....D	29.95
22-430	Throat mic/ear/PTT box; 75-510XLB D	49.95

MIRAGE (MIR)

A-1015G	50-52 FM/SSB 10/150w amp/preamp	$349.95
B-34	2m FM 2/35w amplifier	69.95
B-34G	2m FM/SSB 3.5/35w amp/preamp	89.95
B-55G	2m FM 50w amp for handheld	109.95
B-215G	2m FM/SSB 2/150w amp/preamp	339.95
B-310G	2m FM/SSB 4/100w amp/preamp	179.95
B-320G	2m FM/SSB 50/200w amp/preamp ..	399.95
B-510G	Dlx 100w 2m FM amp for HT/mobile	209.95
B-1016G	2m FM/SSB 10/160w amp/preamp	339.95
B-1030G	2m FM/SSB 10/300w amp/preamp	619.95
B-2516G	2m FM/SSB 25/160w amp/preamp	269.95
B-2530G	2m FM/SSB 25/300w amp/preamp	619.95
B-5016G	2m FM/SSB 50/160w amp/preamp	269.95
B-5030G	2m FM/SSB 50/300w amp/preamp ..	599.95
BD-35	2m/440 4/45//4/35w HT amp	149.95
BD-38/BD-38G	2m/440 4/80w HT amp/preamp	279.95
B-24G	5/50w 2m HT dock boost amp/pre	114.95
BD-25	5/45//5/35w 2m/440 HT dock boost	164.95
MI-1	Ico 2G/02/2/32 adapter; B24G/BD25	9.95
MI-2	Ico 2SAT/W2 adapter; B24G/BD25	9.95
MI-3	Ico 2GXAT/W21AT adapt; B24G/BD25	9.95
MI-4	Ico W32/31/T7/22 adapt; B24G/BD25	9.95
MK-1	Ken 25/26/75/77 adapt; B24G/BD25	9.95
MK-2	Ken 22/79 adapter; B24G/BD25	9.95
MS-1	ADI/Standard adapter; B24G/BD25 ..	9.95
MY-1	Yae 23/411E/470 adapt; B24G/BD25 .	9.95
MY-2	Yae 26/415/530 adapt; B24G/BD25 .	9.95
MY-3	Yae FT11/41/51 adapt; B24G/BD25 ..	9.95
MY-4	Yae FT10/40/50 adapt; B24G/BD25 ..	9.95
C-22G	220 FM/SSB 2/20w amp/preamp	154.95
C-211G	220 FM/SSB 2/110w amp/pre	299.95
C-106G	220 FM/SSB 10/60w amp/preamp ...	214.95
C-1012G	220 FM/SSB 10/120w amp/preamp	299.95
C-1022G	220 FM/SSB 10/220w amp/preamp	589.95
C-2512G	220 FM/SSB 25/120w amp/preamp	289.95

Mirage - continued

		AES Price
C-2522G	220 FM/SSB 25/200w amp/preamp	589.95
C-5012G	220 FM/SSB 50/120w amp/pre	299.95
C-5022G	220 FM/SSB 50/200w amp/preamp	579.95
D-15N	430 FM/SSB/ATV 2/15w type N amp ...	169.95
D-26N	440 FM/SSB 2/60w type N amplifier ..	244.95
D-1010N	440 FM/SSB 10/100w type N amp .	354.95
D-3010N	440 FM/SSB 30/100w type N amp .	329.95
D-1010-ATVN	430 ATV 10/100w type N amp .	369.95
RC-1*	Remote control head w/18' cable	45.95

*Not for B-23/C-22/D-26

The following Repeater Amplifiers Special Order. Specify SO-239 or type N connectors

A-1015NR	6m FM 2/80w type N amplifier	$539.95
A-1015R	6m FM 2/80w SO-239 amplifier ...†	439.95
B-215NR	2m FM 1/110w type N amplifier	524.95
B-215R	2m FM 1/110w SO-239 amplifier	504.95
B-1016NR	2m FM 2/120w type N amplifier ..	559.95
B-1016R	2m FM 2/120w SO-239 amplifier ...	539.95
B-2516NR	2m FM 12/120w type N amplifier	519.95
B-2516R	2m FM 12/120w SO-239 amplifier .	499.95
C-211NR	220 FM .5/80w type N amplifier	584.95
C-211R	220 FM .5/80w SO-239 amplifier	564.95
C-1012NR	220 FM 5/90w type N amplifier ...	584.95
C-1012R	220 FM 5/90w SO-239 amplifier	564.95
C-2512NR	220 FM 15/90w type N amplifier .	559.95
C-2512R	220 FM 15/90w SO-239 amplifier ..	539.95
D-1010NR	440 FM 4/80w type N amplifier ...	589.95
D-3010NR	440 FM 12/80w type N amplifier .	564.95
D-1010-ATVN-R	430 ATV 4/80w type N amp .	589.95

PREAMPS

KP-1/10M	10m in shack preamp	$129.95
KP-1/6M	6m in shack preamp	129.95
KP-1/2M	2m in shack preamp	129.95
KP-1/220	220 in shack preamp	129.95
KP-1/440	440 in shack preamp	129.95
KP-2/10M	10m mast mount preamp	179.95
KP-2/6M	6m mast mount preamp	179.95
KP-2/2M	2m mast mount preamp	179.95
KP-2/220	220 mast mount preamp	179.95
KP-2/440	440 mast mount preamp	179.95

WATTMETERS

MP-1	160-10m 25/200/2kw PEP wattmeter .	$219.95
MP-2	6 & 2m 50/500/1.5kw PEP wattmeter .	219.95
MP-3	420-450 5/50/500w PEP wattmeter	249.95

Monitor America (MON)

Monitor America	Scanner frequency book	$ 29.95

MOTOROLA (MOT)

50995	Camouflage TalkAbout Plus FRS .....Δ	$ 69.95
53543	Camouflage TalkAbout 250 FRS	89.95
53590	Blue TalkAbout 250 FRS	79.95
53592	Black TalkAbout 250 FRS	79.95
50226	Headset w/microphone	14.99
53716	Black TA-280SLK NiMH FRS	119.95
53770	Dark slate FR50 FRS	49.95
53725	Headset w/microphone	14.99
53544	2w grey TalkAbout Distance GMRS	189.95
53547	2w grey TalkAbout Distance Plus GMRS	199.95
50226	Headset w/microphone	14.99

NCG (NCG)

BB-516	Motorcycle intercom set .....D	$ 39.95
BJP-514K	Motorcycle earphone/mic; Ken ....D	39.95
MC-910	Ear/bm mic w/cap-clip/ear hook; not Ken D	19.95
MC-910K	Ear/bm mic w/cap-clip/ear hook; Ken HT D	19.95
MH-900PK	Earpc/boom mic/PTT; Ken HT ....D	9.95
MP-28	Boom mic/headset/PTT; all HT but Ken D	29.95
MP-28K	Boom mic/headset/PTT for Ken HT D	29.95
NCG-2050	1.6-60MHz 30/300/3kw meter	129.95
NCG-3000	118-530MHz 5/20/200w PEP meter	99.95
Power Pocket	12v 2AH lead acid belt batt/cgr	66.95
RP-150	20A variable ps/lighted meters/fan .	159.95

NCG - continued

		AES Price
RP-300	30A variable ps/lighted meters/fan .	239.95

NEW WAVE (NEW)

Adventurer	12' extended Portaple alum mast ...	$109.95
Traveler	19' extended Portaple alum mast	124.95
Rover	26' extended Portaple alum mast	149.95
Expeditioner	33' extended Portaple alum mast ...	174.95
Explorer	40' extended Portaple alum mast ..	199.95
Big Foot	Welded, unpainted park-on mt	119.95
Snap-on Mount	Clamp on mt; ant-mast ...	19.95

NORCOMM (NOR)

NC-101	Tunable CTCSS encoder	$ 19.95
NC-104	Programmable CTCSS encoder	24.95
NC-106	Prog CTCSS encoder/decoder	59.95
NC-401	Sub-miniature DTMF decoder	59.95

NYE VIKING (NYE)

ANTENNA TUNERS AND ACCESSORIES

MBV-A	3kw tuner with ant switch & meters .	$879.95
020-001	2kw low-pass filter	56.95

MASTER KEY

330-001	Black enamel base w/cable, plug ...	$ 72.95
330-C	Chrome plated Master Key/cable/plug	139.95

HEAVY DUTY SPEED-X KEYS WITH NAVY KNOBS

320-001	No shorting switch	$ 44.95
320-003	As above, w/shorting switch	51.95
322-001	Brass hardware, no switch	35.95
322-003	As above, w/shorting switch	44.95

STANDARD SPEED-X KEYS

310-001	Black, no shorting switch	$ 40.95
310-003	As above, w/shorting switch	45.95
312-001	Brass arm, no shorting switch	32.95
312-003	As above, w/shorting switch	39.95

OAK BAY (OAK)

CA-232HH	Handheld packet cable .....D	$ 4.95
CA-232U	Universal packet cable .....D	4.95

Oregon Scientific (ORE)

BA-812E	The weather clock	$ 49.95
PE-319	Pedometer with personal security	29.95
RM-116E	Exactset radio controlled clock	39.95
WM-918	Dlx weather station w/rain gauge ...	199.95
SW-918	PC software/cable for WM-918	29.95
WMR-918	Dlx wireless WX stn w/rain gauge	329.95
WR-102	Port WX/hazard radio/SAME alert	49.95
WR-3300	Weather/hazard radio/alert w/ps ...	29.95
WR-8800	Port WX/hazard radio/alert w/ps .D	49.95

OUTBACKER (OUT)

OB-8	300w PEP 6' 75-10m 8-band mobile ant	$279.95
OB-8HP	500w PEP 6' 75-10m 8-band mob ant	299.95
OB-S8	8-band 300w PEP split ant/storage bag	299.95
OB-8TRI	3-pc 300w PEP 6' 8-band port ant .	329.95
OB-M	300w PEP 6' 75/40/20/17/10m/HF marine	429.95
Perth	150w PEP 7.5' 75-10m mobile ant	289.95
Perth Plus	150w PEP 6' 75-10m+6m/2m mob ant	299.95
Stealth Plus	100w PEP 4' 75-10m+6/2m ant	269.95
Outreach	300w PEP 12' 160-10m antenna ...	399.95
Outreach 500	600w PEP 12' 80-6m antenna	439.95
Outrunner	150w PEP 9' 160-10m antenna ...	349.95
ALP Outpost	Base tripod mtg sys for mob ant	199.95
OB-SB	3/8-24 spring and 1/2" hole base	99.95
Diamond K-400-3/8C	3/8-24 trunk mt, 6' coax	69.95
Diamond C-110	10' ext cable; K-400-3/8C	14.95

PACCOMM (PAC)

APRS port switch	.....	$ 29.95
HandiPacket	Small TNC for handhelds	229.95
PicoPacket TNC, 128K RAM	.....	149.95
PicoPacket battery model TNC, 128K RAM	.....	209.95
PicoPacket dual serial port TNC, 128K RAM	...	199.95
Spirit-2	Standard high performance controller	239.95
Tiny-2 Mk-2	Multi-purpose TNC	149.95

Paccomm - continued

	AES Price
Tiny-2 Mk-2/GPS TNC w/GPS & mag GPS ant	499.95

Palomar Engineers (PAL)

150-550 KHz plug-in loop (LF, 1750m) .....Δ	$ 79.95
.55-1.6 MHz plug-in loop (AM broadcast) ...Δ	79.95
1.6-5 MHz plug-in loop (160m, 80m) .....Δ	79.95
FER-2 RF ferrite toroid kit	25.95
MDB-2 Mag dipole receiving balun .....D	14.95
MSB-3 Magnetic switch receive balun .....D	49.95
PCM-1 1-30MHz RF current meter	129.95
PS-95 AC adapter for M-835/840 .....D	9.95
PT-340 Tuner-Tuner (use with ant tuner)	99.95
RFI-3 RF interference kit .....D	9.95
RFI-4 RF interference kit	25.95
SMB-5 SmartBridge prog; AT computers .....D	.99
VLF-A VLF converter; 10-500 KHz to 80m	89.95
VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz	89.95

PAR (PAR)

50-EL3 6m 3 el beam, 5' boom, 7db	$ 91.95
144-AUX 2m 4 effective el add-on kit, 7 db	42.95
OA-28 10m horizontal omni antenna	74.95
OA-50 6m horizontal omni antenna	63.95
SK-50 Stacking harness for OA-50	36.95
OA-144 2m horizontal omni antenna	54.95
SK-144 Stacking harness for OA-144	34.95
OA-222 220 horizontal omni antenna	54.95
SK-222 Stacking harness for OA-222	34.95
OA-432 430 horizontal omni antenna	54.95
SK-432 Type N stacking harness; OA-432	54.95
UHFDN450 440 dual band notch filter	62.95
VHFDN152 2m dual band notch filter	62.95
VHFDN152HT 2m dual band HT notch filter	68.95
VHFTN152-158 2m dual band+pager notch filt	82.95
UHF-12 12" RG58/silver/gold/tef PL259s	9.95

PENETROX (PEN)

Penetrox A 4 oz tube for antennas	$ 12.95

PERCON (PEC)

Spectrum FCC database CDROM .....Δ	$ 9.95

PERIPHEX (PER)

BP-132 12v 600ma battery for Icom .....Δ	$ 19.95
BP-132A 12v 600ma batt for Icom .....Δ	19.95
FNB-33 4.8v 1700ma batt for Yaesu .....Δ	14.95
FNB-35 7.2v 600ma batt for Yaesu .....Δ	9.95
Santec ST-142 9.6v 600ma batt; ST142 .....D	4.95

PHILIPS (PHI)

U-105 Light duty rotor/4-wire	$ 69.95
TB-105 Thrust bearing	18.95

PIPO TOUCH-TONE PADS (PIP)

PK-1 12-digit pad	$ 71.95
PK-1K 12-digit pad w/delay relay	78.95
PK-1M 12-digit pad for surface mtg	71.95
PK-2 16-digit pad	76.95
PK-2K 16-digit pad w/delay relay	83.95
PK-2M 16-digit pad for surface mtg	76.95

POLICE CALL (POL)

CD-ROM 48 state scanner freqs CD-ROM	$ 34.99
IL/IN/KY/WI Police Call Plus scanner freq book	12.99
MI/OH Police Call Plus scanner freq book	12.99

POLYPHASER (PLY)

LIGHTNING PROTECTION

IS-50NX-C2 125-1000 375/125/50w N flange	$ 61.95
IS-50UX-C0 1.5-400 2kw/375/125w flange mt	61.95
IS-50UX-C1 50-700MHz 375/125w flange mt	61.95
IS-B50LN-C2 125-1000 375/125/50w N bulkhead	64.95
IS-B50LU-C0 1.5-400 2kw/375/125w bulkhead	64.95
IS-B50LU-C1 50-700 375/125w bulkhead mt	64.95
IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulk	129.95
IS-IE50LU-C1 50-500 dlx 375/125w bulkhead	129.95
IS-IE50LN-C1 50-700 dlx 375/125w N bulkhead	117.95

Polyphaser - continued

	AES Price
BF Adapter Bulkhead to flange mt adapter	9.95
FB Adapter Flange to bulkhead mt adapter	11.95
IS-PLDO-120-15A 120v 15A power protector	172.95
IS-PLDO-120-20A 120v 20A power protector	215.95
IS-RCT 8-wire rotor control protector	54.95
J-1 1/2" to 1 1/3" bronze transition clamp	8.95
J-2 1 1/2" to 2 1/4" bronze transition clamp	12.95
IS-SPTL Single phone line protector	57.95
CS112-25 25' 1½" copper strap	25.95
CS112-50 50' 1½" copper strap	51.95
CS112-75 75' 1½" copper strap	75.95
CS112-100 100' 1½" copper strap	100.95
CS3-25 25' 3" copper strap	51.95
CS3-50 50' 3" copper strap	100.95
CS3-75 75' 3" copper strap	150.95
CS3-100 100' 3" copper strap	197.95
CS6-25 25' 6" copper strap	100.95
CS6-50 50' 6" copper strap	197.95
CS6-75 75' 6" copper strap	299.95
CS6-100 100' 6" copper strap	391.95
CU-SPGP Copper single point ground panel	69.95
TK-2 1½" strap to Rohn twr corrosion free clamp	5.95
TK-3 1½" strap-2¼" to 3¾" mast corr free clamp	8.95
1C-112S #6-#1 wire to 1½" strap clamp bond	10.95
58R-112S 1½" strap to ⅝" gnd rod clamp bond	12.95
MSC-3 Junc; 2+ 1½" or 3" strap clamp bond	10.95
UNI-KIT 2CT Gnd kit; coax to alum/tin/galv	29.95
UNI-KIT 2TC Gnd kit; galv twr leg to copper	32.95
UNI-KIT 2CC Ground kit; coax to copper	28.95
CCK Copper cleaning kit; 4 oz can, brush	27.95
GLEP Lightning and EMP Protection book	20.00

The POUCH (POU)

1R Pouch for Yaesu VX-1R	$ 12.95
2G Pouch for Icom IC-2GXAT	14.95
5R Pouch for Yaesu VX-5R	14.95
10R/10R/50R Pouch; Yaesu FT-10/40/50R	12.95
32-5T Pouch; Alinco DJ-G5T/Icom IC-W32A	14.95
95T Pouch for Alinco DJ-195T	14.95
508/S508-Q7 Pouch; Ico Q7/Sta 108/508A/Yae VR500	12.95
510/S-510-T8 Pouch; Ico T8A/T81A/Sta 510A	12.95
AF-738 Pouch for Alinco DJ-C1T/C4T/C5T	12.95
ANALYPOUCH Pouch for MFJ analyzer	24.95
DTX Pouch for Kenwood TH-D7A	17.95
G-71/G Pouch for Kenwood TH-G71A	17.95
P-4V Pouch for UBZ-LF14 FRS	12.95
P-5 Pouch; DJS11T/S46/ICT7A/T22A/FT11R	14.95
PR Pouch for ADI PR-52/222	14.95
S-1 Pouch; AT-201HP/AT-600HP/TH-79A	17.95
S-2 Pouch; TH-79AH/TH-235A/VC-H1	17.95
S-3 Short 3 Pouch for HT	17.95
Slim Pouch; Alinco DJ-190/191T/Sta C-288A	17.95
SS Pouch for TH22AT/TH28A/FT51R&HP	17.95
T-2A Pouch; AT-201/600/Chr AH-50/IC-T2A	17.95
V-5T Pouch for Alinco DJ-V5T	14.95
VX-3T Pouch for Alinco DJ-180/280/480T	17.95
XF-1 Pouch for Yaesu VXF-1/VXF-10 FRS	12.95
Chest B/S Chestpouch ser B w/S pocket	29.95

PREMIER (PRE)

AL-800 2m/440 34" BNC rubber duck ant	$ 29.95
RD-2 2m/440 2" BNC duck	14.95
RD-2SMA 2m/440 2" SMA duck	15.95
RD-8 2m/440 6.5" BNC duck	14.95
RD-9 2m/440/900 7" BNC duck	18.95
RD-9SMA 2m/440/900 7" SMA duck	20.95
RD-78 2m/440 15" BNC whip	19.95
RD-98 2m/440 17" BNC whip	24.95
RD-98SMA 2m/440 17" SMA whip	27.95
MC-2 Super suction & mag mt; NMO/UHF ..D	29.95
SB-752 12vdc 6.5A port batt power pack	59.95
TA-2 Hvy dty rubber coat tnk mt; NMO/UHF ...D	9.95
TX-3 2m/440/900-1.2 800/800/200w triplexer D	9.95

Premier - continued

	AES Price
SPM-100 Spkr/mic; ADI/Ali/Icom/Yaesu	21.95
SPM-100L Spkr/mic/L plug; Icom/Yaesu	21.95
SPM-101 Speaker/mic for Kenwood	21.95
SPM-102 Speaker/mic; Yae FT-50/VX1/5R	21.95
SPM-200 Lapel mic/earph; ADI/Ali/Ico/Yae	16.95
SPM-200L Lapel mic/earph/L; Icom/Yaesu	16.95
SPM-200E Lapel mic/earhook; ADI/Ali//Ico/Yae	21.95
SPM-200EL Lapel mic/earhook/L; Ico/Yae	21.95
SPM-201 Lapel mic/earphone for Kenwood	18.95
SPM-201E Lapel mic/earhook for Kenwood	23.95
SPM-202 Lapel/mic/earphone; FT-50/VX1/5R	19.95
SPM-202E Lapel mic/earhook; FT-50/VX1/5R	25.95
SPM-301 Spkr/mic/PTT lock/volume; Ken ...D	19.95
SPM-400 Boom/mic; ADI/Alinco/Icom/Yaesu	25.95
SPM-400L Boom/mic/L; Icom/Yaesu	25.95
SPM-401 Boom/mic for Kenwood	27.95
SPM-402 Boom/mic; Yaesu FT-50R/VX1R/5R	29.95
PTT-1 Remote PTT control; SPM-400 series	9.95
SPM-400PT Boom/mic/PTT-1; ADI/Ali/Ico/Yae	29.95
SPM-400LPT Boom/mic/L/PTT-1;Icom/Yaesu	29.95
SPM-401PT Boom/mic/PTT-1 for Kenwood	30.95
SPM-402PT Bm/mic/PTT-1; Yae FT50R/VX1/5R	32.95
SPM-500 Throat/mic/earph; ADI/Ali/Ico/Yae	37.95
SPM-501 Throat/mic/earphone for Kenwood	39.95
SPM-502 Throat/mic/earphone; Yae FT-50/VX1/5R	40.95
SPM-600 Full sized spkr/mic; ADI/Ali/Ico/Yae	25.95
SPM-600L Full sized spkr/mic/L; Icom/Yaesu	25.95
SPM-601 Full sized spkr/mic for Kenwood	25.95
SPM-602 Full sized spkr/mic; FT50/VX1/5R	25.95
SPM-700 Palm mic w/earph; ADI/Ali/Ico/Yae	29.95
SPM-701 Palm mic w/earphone for Kenwood	31.95
SPM-702 Palm mic w/earphone; FT50/VX1/5R	33.95
EH-1 Deluxe earphone w/earhook	14.95
EH-1K Deluxe earphone w/earhook; Kenwood	14.95
MMC-100 Sun visor mobile mic system	79.95
PMC-100 Base station microphone system	79.95
PCA-IHF Cable/8-pin; Icom HF	15.95
PCA-IVHF Cable/RJ-45; Icom VHF	15.95
PCA-KHF Cable/8-pin; Alinco/Kenwood HF	15.95
PCA-KVHF Cable/RJ-45; ADI/Alinco/Kenwood HF	15.95
PCA-YHF Cable/8-pin; Yaesu HF	15.95
PCA-YVHF Cable/RJ-45; Yaesu VHF	15.95
PCA-Y100 Cable; Yaesu FT90/100/2600	15.95

PRO AM by VALOR (VAL)

VHF/UHF ANTENNAS ONLY (No Mounts)

M0144-440 2m/440 antenna	$ 21.95
PAQA 136-515 MHz ¼ wave antenna	8.95
PAQ-144 2m ¼ wave antenna	8.95
PAQ-435 440 ¼ wave antenna	8.95
PAQ-3820 2m ¼ wave whip w/ ⅜-24 thread	8.95
PHB-144 2m ⅝ wave 3 db antenna	31.95
PUB-440 440 5 db antenna .....Δ	6.95

MOUNTS ONLY FOR ABOVE ANTENNAS

PAM Low profile magnet mount w/coax	$ 28.95
PAMB Black low profile mag mount w/coax	28.95
PAN38 ⅜-24 antenna to NMO mt adapter	19.95
PAS ¾" surface mount w/coax	20.95
PASMO ¾" surface mt only (no coax)	7.95
PAS38 ⅜" surface mount w/coax	20.95
PAS38MO ⅜" surface mt only (no coax)	7.95
PAT-2 No hole trunk mount w/coax	27.95
PAT-2B Black no hole trunk mount w/coax	27.95
PAT-3 Swivel NMO-style trunk mt w/coax	35.95

OTHER VHF/UHF ANTENNAS & MOUNTS

77BNC 2m/440 12" 0/2.1db BNC rubber duck	$ 23.95
144BNC 2m 12" ¼ wave rubber duck w/BNC	11.95
220BNC 220 10" ¼ wave rubber duck w/BNC	11.95
BNC-SC Suction cup extension; ducks .....D	19.95
BNC-SC-RS Suction cup extension; ducks	22.95
WMSL-BNC Window clip for rubber ducks	42.95
100ADN SO-239 horizontal mirror mt	10.95
101ADN HD alum mirror mt w/SO-239	10.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Pro Am - continued

	AES Price
105AD Hvy duty ⅜" mount assembly	6.95
301 ⅜-24 magnet mt only w/coax	25.95
401 Low profile ⅜-24 mag mt only w/coax	31.95
DAK Mt for 2 vert ants or horizontal dipole	13.95
GM-100AD SS GM ⅜-24 mirror mt w/SO-239	9.95
GM-144 2m 2.5db on glass antenna	44.95
GM-270 2m/440 2.6/6.3db on glass antenna	59.95
TGMKD On glass replacement mtg kit	8.95
MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags)	59.95
MM-3401B Blk maxi-mag mt ⅜-24 kit (3-5" mags)	59.95
SS-100MOT 3-way NMO mirror mt w/coax	23.95
CX-144/CX-144B 2m ⅝ wave 3db ⅜-24 whip	17.95
MM-270B 2m/440 mini mag mt ant w/BNC	56.95
PA-144M 6m/2m 49" 0/3db mag mt ant	19.95
PA-220M 220 30" 3db mag mt ant	19.95
PA-270M 2m/440 19" 0/2.1db mag mt ant	19.95
PA-440M 440 22" 4db mag mt ant	19.95
PAQM 144-450 MHz ¼ wave BNC mag ant	28.95
PM-144-440BN 2m/440 BNC mag mt ant	33.95
TGS 30-1200MHz on-glass scanner ant	48.95
VAA-002B 144-450 black ¼ wv mag mt ant	23.95
VAA-002BBN 144-450 black ¼ wv BNC mag ant	27.95
120 Sawtooth hump mt for mobile radios	7.95
D-270 2m/440 100w duplexer	45.95

MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna	$119.95
PHF-160 160m 8' ⅜-24 whip	97.95
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip)	29.95
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip)	23.95
PHF-6 6m 58" ⅜-24 whip	23.95
103S Quick disconnect/5 twist lock connectors	24.95

QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder	$ 12.95

RCA (DSI)

DS-2122 Single DBS system/dish/rcvr/LNB	$ 99.95
DS-2232 Dual DBS sys/dish/rcvr/dual LNB	179.95
DS-4280 Dlx dual DBS system/Dolby/dual LNB	279.95
108 F-56 connector with O-ring	.75
5729 RG-6 double shielded coax .....per ft.	.19
5729 Box .....1000 ft. Roll	99.95
ACAC-5960 Deluxe crimp tool for RG-6/RG-59	19.95
DKIT-1 DBS installation kit	49.95
DLNB-1 DBS single LNB	59.95
DLNB-2 DBS dual LNB	69.95
DRD-420RE Slave DBS receiver	79.95
DRD-480 Deluxe DBS slave receiver	199.95
HDR-112 TiVO (PHI) 14-hr dig video recorder	*399.95
*Less $100 rebate from manufacturer thru 4/30/00	
CDS-1000 Digital still camera w/2MB memory	169.95
RD-2204 Lyra personal digital audio player w/car kit	249.95

Sorry, no exports on RCA DBS products.

RF APPLICATIONS (RFA)

P-1500 1.8-30 MHz dig power/SWR meter ..D	$169.95
P-1500-P Power supply for P-1500 .....Δ	14.95
P-2000A 1.8-30 MHz dig power/SWR meter	299.95
P-2000CW 1.8-30 MHz audible (CW) meter	249.95
P-3000 Deluxe 1.8-30MHz digital power/SWR	299.95
P-3000-P Power supply for P-3000, etc.	12.95
VFD-HF 1.8-30 MHz 2955w dig power/SWR	249.95
VFD-VHF 50-225 Mhz 300w dig power/SWR	249.95
Match Alert VSWR monitor/alarm .....D	99.95

RF CONCEPTS (RFC)

2-23 2m FM/SSB 2/30w amp/preamp .....D	$ 69.95

RF Concepts - continued

	AES Price
2/70 2m/440 FM 3/30//5/20w HT amp .....D	129.95
144 2m FM mini-amp 2/30w amp .....D	49.95
144P 2m FM mini-amp 2/30w amp/preamp Δ	89.95
VHF1-60 2m 1/60w FM HT amplifier .....D	119.95

RF INQUIRY (RFI)

CF250E-UHF 250w 1.8-70 common mode filter	$ 89.95
CF5KV-UHF 5kw 1.8-70 common mode filter	124.95

RF LIMITED (RFL)

HL-36U 440 .5-12/30w amplifier .....Δ	$119.95

RF PARTS (See Diamond)

RF PRODUCTS (RFP)

199-416 BNC mag mt, 10' coax w/BNC	$ 17.95

RACOM (RCO)

700 Automatic morse code identifier .....Δ	$ 49.95
700-PC Programming kit .....Δ	9.95

Radio Amateur Callbook (RAC)

059324 2000 World Radio TV Handbook	$ 24.95
087581 2000 N America/Int CD-ROM callbook	49.95

RADIO PUBLICATIONS

087034 All About Cubical Quad Antennas	$ 13.95
087042 Beam Antenna Handbook	13.95
087050 All About VHF Amateur Radio	13.95
087069 Radio Amateur Antenna Handbook	13.95
087077 Simple, Low Cost Wire Antennas	13.95
087093 Interference Handbook	13.95
087107 All About Vertical Antennas	13.95

RAMSEY (RAM)

AA-7 Active antenna kit	$ 28.95
AF-1 Hi-Q CW audio filter kit	34.95
AR-1 Aircraft receiver kit	29.95
CS-1 Crystal radio set kit	19.95
CW-7 CMOS keyer kit	24.95
DF-1 Foxhound direction finder kit	59.95
DN-1 Nicad conditioner/fast charger kit	49.95
FR-1 FM broadcast receiver kit	24.95
HR-20 20m receiver kit	29.95
HR-40 40m receiver kit	29.95
HR-80 80m receiver kit	29.95
PR-10 2m preamp kit	17.95
QRP-20 20m CW transmitter kit	29.95
QRP-40 40m CW transmitter kit	29.95
QRP-80 80m CW transmitter kit	29.95
RFS-1 RF sensed switch kit	14.95
SCA-1 SCA decoder kit	27.95
SR-1 Shortwave receiver kit	29.95
TS-1 CW touch paddle switch kit	6.95
UT-5 Universal timer kit	8.95
VS-1 Voice activated switch kit	6.95
WA-10 BNC telescopic whip antenna	12.95

RANGER (RAN)

LC-1000 Leather case; RCI-1000 VHF HT ...Δ	$ 2.95
RCI-6060 25w VHF FM marine Xcvr .....D	129.95
SRA-106A Speaker/mic; RCI-1000 VHF HT ..D	9.95
SRA-107 Speaker/mic; RCI-1000 VHF HT ...Δ	19.95
RCI-2950DX 10/12m 25w SSB 10w FM/AM/CW	249.95
RCI-2970DX 10/12m 150w SSB 50w FM/AM/CW	379.95

ROHN TOWERS (ROH)

HBX-40/BXB-6 40' twr/base stubs, 10 sq ft *T	$490.95
HBX-48/BXB-7 48' twr/base stubs, 10 sq ft *T	653.95
HBX-56/BXB-8 56' twr/base stubs, 10 sq ft *T	820.95
HDBX-40/BXB-7 40' twr/base stubs, 18 sq ft ΔT	499.95
HDBX-48/BXB-8 48' twr/base stubs, 18 sq ft *T	816.95

*Drop-shipped from factory

On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise.

Rohn - continued

Shipment is FOB the Rohn factory, which has various locations, via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these drop-shipped towers. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

Note: Rohn states that "antennas developing a large twisting moment due to wind must not be used on HBX/HDBX-series towers. Antennas should be limited to those having a maximum boom length of 10 ft.

Other Rohn Towers available on Special Order

SGC (SGC)

	AES Price
04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr	1599.95
04-06 SG-2000 Slim Pack Xcvr (no head)	1339.95
04-11 Std SG-2000 rem head/bkt/20' cable	589.95
04-15 Remote mobile head/mem ch's only	399.95
51-82 Fan kit for continuous duty xmit	269.95
04-10 SG-2000 Xcvr w/DSP/PowerTalk head	1849.95
04-23 SG-2000 Xcvr/DSP/PowerTalk remoted	2179.95
04-12 Remote kit w/swivel bkt & cable	179.95
04-13 Remote kit w/5-way mount & cable	319.95
04-14 Rem kit w/suction cup mt & cable	449.95
04-22 PowerTalk remote head	799.95
52-31 Waterproof military handset	339.95
52-32 Carbon telephone handset	174.95
52-34 RS-232 interface; SG-2000 Xcvr	179.95
52-47 Shock/military mounting tray	269.95
52-51 CA-1 High voltage feed wire ..per ft	.79
52-52 CA-2 RG-58 coax cable .....per ft.	.99
52-53 CA-230 Ant coupler cable .....per ft.	4.95
52-54 CA-2000 Remote head cable per ft.	4.95
53-04 PS-30 30A/40A peak unreg ps	399.95
53-05 PS-50 50A/70A peak unreg ps	419.95
52-61 PSC/12-1 12' ps cable, 1 plug	50.95
52-62 PSC/12-2 12' ps cable, 2 plugs	60.95
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic	675.95
52-96 SG-500 1.8-24MHz 12v 500w PEP amp	1169.95
51-82 Fan kit for continuous duty xmit	269.95
56-40 SG-7200 DSP HF Smartmodem/Emailer	695.95
70-07 PowerClear add-on DSP unit .....D	349.95
54-12 SG-230 200w 1.8-30 MHz 12v Smartuner	489.95
54-61 25' extension cable	60.95
54-62 50' extension cable	90.95
54-63 SmartLock; tuners made after 9/1/93	59.95
54-15 SG-235 500w 1.8-30MHz 12v Smartuner	1169.95
54-16 SmartPro 200w 1.6-30MHz 12v tuner †	599.95
54-17 SG-231 HF+6m 12v Smartuner	529.95
54-18 SG-237 100w PEP HF+6m mini Smartuner	339.95
55-04 SG-103 1.8-30MHz 150w dipole	229.95
55-06 SG-104 2-28 MHz 90' 1kw dipole	629.95
55-27 SG-303 1.8-30 9' mobile whip & mt	449.95
55-67 Replacement whip for SG-303	199.95
55-28 SG-307 1.8-60 7' mobile whip & mt	319.95
55-47 QMS-2 Quick mt sys w/SG-230/303 whip	895.95
55-48 QMS-3 500w antenna system	2169.95
55-49 QMS-7 Quick mt sys w/SG-231/307 whip	1299.95
56-15 External ARQ/FEC system	1069.95

SANGEAN (SAN)

ATS-303 AM/FM/shortwave port receiver .....D	$ 79.95
ATS-404 AM/FM/SW portable receiver w/case †	99.95
ATS-505 AM/FM/SW portable receiver	129.95
ATS-606A AM/FM/shortwave portable receiver	169.95
ATS-818 AM/FM/shortwave portable receiver	179.95
ATS-818CS AM/FM/SW port Rcvr w/cassette	229.95
ATS-909 AM/FM/shortwave portable receiver	279.95
DT-200V AM/FM/VHF TV sound dig port Rcvr	79.95
SR-77 AM/FM micro sized receiver .....D	29.95

SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book	$ 14.95
POCKET REF Pocket reference book	9.95

AES Price

SHAKESPEARE (SHA)

5204-8	Combo CB/VHF marine 8' ant ....Δ	$ 29.95
5220	8' Galaxy Loran C whip ....Δ	6.95
5221	8' black Galaxy Loran C whip ....Δ	6.95
5302	8' VHF marine/Loran combo ant ....Δ	39.95
396-1	3 db, 5' VHF marine ant, less mount ..	59.95
5101	6 db, 8' VHF marine ant, less mount ...	49.95
5202	6db VHF mar ant/chrome ferrule, less mt	69.95
5206-C	Econo 8' VHF mar ant/chrome ferrule, no mt	39.95
495	White plastic lift & lay mount	16.95
4187	Stainless steel ratchet mount	36.95
420	3db, 5' VHF marine ant w/fold-down mt	59.95

SHURE (SHU)

526T Series II	Dynamic amplified desk mic .	$119.95
R96	Replacement cartridge	26.95

Smiley Antenna (SMI)

270A	2m/440 gain telescopic whip	$ 19.95
270A/SMA	2m/440 gain tele whip w/SMA	19.95
5/8 SLD-2	2m ⅝ Slim Duck rubber ant	17.95
5/8 SLD-220	220 ⅝ Slim Duck rubber ant	17.95
5/8 SLD-440	440 ⅝ Slim Duck rubber ant	17.95
5/8 SLD-2 Combo	2m ⅝ duck & stubby ant ..	24.95
5/8 SLD-220 Combo	220 ⅝ duck & stubby ant	24.95
5/8 SLD-440 Combo	440 ⅝ duck & stubby ant	24.95
FLX 1/2 WAV-2M	½ wv 2m BNC whip/flex coil	25.95
RD-2	2m rubber duck antenna	14.95
RD-220	220 rubber duck antenna	14.95
RDMD-2	2m mini rubber duck antenna	14.95
RDMD-220	220 mini rubber duck antenna ...	14.95
RDMD-440	440 mini rubber duck antenna ...	14.95
RDS-2	2m stubby rubber duck antenna	14.95
RDS-220	220 stubby rubber duck antenna ...	14.95
RDS-440	440 stubby rubber duck antenna ...	14.95
SD-2	2m Slim Duck thin rubber antenna	14.95
SD-220	220 Slim Duck thin rubber antenna .	14.95
SL-440	440 slimline type duck	12.95
SS-II	Super Stick 2m ⅝ wv telescopic ant	19.95
SS-III	Super Stick 220 ⅝ wv telescopic ant ..	19.95
SS-IV	Super Stick 440 ⅝ wv telescopic ant ...	19.95
SS-II/Combo	2m ⅝ wv telescopic & stubby ant	26.95
SS-III/Combo	220 ⅝ wv telescopic & stubby ant	26.95
SS-IV/Combo	440 ⅝ wv telescopic & stubby ant	26.95
TAQ-2	2m ¼ wave stainless whip	10.95
TAQ-220	220 ¼ wave stainless whip	10.95
TAQ-440	440 ¼ wave stainless whip	10.95
TS	Thin Stick 2m/220 ⅜ wave telescopic whip	16.95

SOLARCON (SOL)

A-99	10m/CB fiberglass base station ant	$ 64.95
GPK-1	Ground plane radial kit	39.95

SOLDER-IT (SLD)

ALP-21D	Alum solder paste, 7.1gm ....Δ	$ .49

SONY (SON)

RFU-W100	RF adaptor for WebTV ....Δ	$ 2.95

SHORTWAVE/SCANNERS

ICF-2010	AM/FM/SW/LW/air port Rcvr w/ps ..	$359.95
ICF-SW07	AM/FM/SW micro Rcvr w/ps	399.95
ICF-SW11	AM/FM/SW compact receiver	49.95
ICF-SW12	AM/FM/SW travel Rcvr/world clock ...	99.95
ICF-SW30	AM/FM/SW portable receiver ....D	89.95
ICF-SW40	AM/FM/SW port receiver	129.95
ICF-SW77	AM/FM/SW portable receiver	469.95
ICF-SW100S	AM/FM/SW portable receiver	349.95
ICF-SW1000T	AM/FM/SW port Rcvr w/cassette	499.95
ICF-SW1000TS	AM/FM/SW Rcvr/tape/AN-LP1 D	499.95
ICF-SW7600G	AM/FM/SW portable receiver ..	179.95
AC-E60HG	6vdc 400ma AC adapter	22.99
AN-1	LW/MW/SW outdoor active rcv ant	99.95
AN-102	LW/MW/SW indoor active rcv ant ...	79.95
AN-LP1	Folding active loop ant w/case	89.95

Sony - continued

AES Price

ICF-SC1	300 ch pocket scanner ....D	219.95
ICF-SC1PC	300ch pock scan/PC interface .D	269.95
AC-E60HG	6vdc 400ma AC adapter	22.99
DCC-E260	Mobile DC adapter	19.99
ICF-B200	AM/FM emergency radio/light/alarm ...	79.95

STANDARD (STA)

C-108A	200mw 2m FM HT ....Δ	$139.95
C-178A	2m/440 FM mini HT/TTP ....Δ	269.95
CAW-152	Cig cord w/filter ....Δ	19.95
CAW-574	13' fnt panel extension cbl; 5718DA Δ	9.95
CHP-150	Headset mic w/VOX; C156A ....Δ	39.95
CLC-171	Soft case for CNB-171 ....Δ	4.95
CLC-172	Soft case for CNB-172/173 ....Δ	4.95
CLC-175	Soft case for CBT-175 ....Δ	4.95
CLC-401	Standard soft case; 108A ....Δ	4.95
CLC-503	Dlx soft case; 108A/508A ....Δ	4.95
CMP-127	Microphone for C-510A ....Δ	19.95
CNB-401	Nicad battery ....Δ	6.95
CTN-5600	Encoder/decoder; C-5608DA ....Δ	19.95

STARTEK (STR)

ATH-30/HS	2800MHz/1-shot/hi-stability ....Δ	$269.95
ATH-50	5Hz-2800MHz bar/auto trig/hispeed Δ	229.95
ATH-50/HS	2800MHz/trig/hi spd/hi stab ....Δ	299.95
APA-9/VPA-9	9vdc auto power adapter ...Δ	2.95
BP-150	130 - 500 MHz bandpass filter ..Δ	39.95
CC-90	Carrying case ....Δ	9.95
DC-5	BNC to clip leads cable ....Δ	5.95
DC-10	Direct probe ....Δ	12.95
HP-400	400 - 1500 MHz bandpass filter Δ	39.95
HP-800	800 MHz - 2 GHz bandpass filter Δ	39.95
LP-22	Lo-pass probe ....Δ	6.95
LP-60	DC - 60 MHz bandpass filter ....Δ	39.95
M-207-IC	Interface cable ....Δ	3.95
P-60	Probe, 60MHz scope, 200MHz FC ....Δ	6.95
P-100	Probe, 100MHz scope, 300MHz FC ....Δ	12.95
P-110	Probe, 200MHz csope, 500 MHz FC Δ	29.95
RD-450	450MHz rubber duck ant ....Δ	8.95
RD-800	800MHz rubber duck antenna ....Δ	9.95
RD-2750	27-50MHz rubber duck ant ....Δ	12.95
TA-90	Telescopic antenna ....Δ	9.95
TA-90L	Right angle telescopic antenna ..Δ	12.95
CAM-PHA-AES	B&W pinhole TV cam/mic/ps ..D	79.95

SUPERIOR (SUP)

18640	Universal grip-type adjustable HT cradle	$ 14.95
(HOU) CPM-310	6" adjustable pedestal mt ..	14.95

SVETLANA (SVE)

4CX250B/7203	Tube ....special order	$105.95
4CX400A	Tube ....special order	140.95
4CX800A	Tube ....special order	190.95
572B	Tube	86.95
8874/3CX400A7	Tube ....special order	335.95

Other Tubes Available on Special Order

Synthetic Textiles (SYN)

100'	3/32" black double braided rope	$ 6.95
100' 3/16	3/16" black double braided rope	14.95
100' 5/16	5/16" black double braided rope	19.95
350'	3/16" black double braided rope	39.95

TV ALLOWANCE (MIN)

100	TV Allowance TV/video time manager	$ 99.95

TV GUARDIAN (TVG)

TV Guardian	Foul language filter for TV/video	$ 99.95

Terk Technologies (TER)

AF-9330	Amplified indoor AM/FM tower ant ..	$ 24.95
AF-9925	Amplified indoor AM/FM loop ant	49.95
AM-1000	Indoor passive fine-tunable AM ant	49.95
FM-50	Amplified indoor/outdoor FM ant kit ...	119.95
LF-20	2.4GHz wireless video/audio system ...	99.95
TV-50	Amplified indoor/outdoor TV ant kit	129.95

Terk - continued

AES Price

TV-MAST	Mast mount kit for TV-50	19.95
TV-41	Clip-on mini dish mt amp TV ant; 1 LNB dish	59.95
TV-42	Clip-on mini dish mt amp TV ant; 2 LNB dish	79.95

Texas Bugcatcher (TEX)

BG-1500-6	80-10m+6m 90" mobile ant ....D	$165.95
BG-1500	80-10m 90" mobile ant	169.95
ADAPT-6M	6m adapter for BG-1500	19.95
BM-EXT	24" stainless mast extension/guy kit	24.95
CC-4	Package of 4 coil clips	7.95
MM-1	Inductive mobile matcher	24.95

Times Microwave (TMS)

LMR-400	Standard ⅜" coax cable ....per ft.	$ .64
LMR-400	....500 ft. Roll	249.95
LMR-400-DB	Watertight ⅜" coax cable per ft.	.74
LMR-400-DB	....500 ft. Roll	299.95
LMR-400-UF	UltraFlex ⅜" coax cable ...per ft.	.98
LMR-400-UF	....500 ft. Roll	399.95

TIMEWAVE/AEA

TIMEWAVE (TIM)

DSP-599zx	All-mode DSP noise filter	$399.95
(AEA) AC-4	12vdc 1.5A ps	19.95
DSP-RTTY	RTTY prog; DSP-599zx/59Y	69.95

TIMEWAVE/AEA DATA/SOFTWARE (AEA)

PK-12	1200 bps VHF/UHF pkt controller	$129.95
100K/PK-12	100K mail upgrade; PK12 ....D	9.95
AC-1	12vdc 600 ma adaptor	15.95
100K	100K mem upgrade; PK-96 ....D	19.95
PK-96/100K	9600 baud control/128K RAM	169.95
AC-1	12vdc 600 ma adaptor	15.95
PC Pakratt Lite	Packet only term prog ....D	4.95
PK-232/DSP	Packet controller w/DSP	450.95
AC-4	12vdc 1.5A ps	19.95
ACARS/900	Air data receive soft; PK-900 ...D	29.95
AEA-FAX III-900	PK900/IBM FAX software ..D	29.95
IH CABLE	PK-232 - Ico/Yae/Ali HT cable ....D	9.95
KH CABLE	PK-232 - Ken HT cable ....D	4.95
PC-Pakratt for	Win 2.0 IBM; 12/88/232	79.95
PK-TERM 99	Terminal prog; PK-12/96/232 ..	79.95
WeFax-256	WX FAX Win prog; 1232/2232 ....D	89.95
YM CABLE	PK-232 - Yae 8pin mic cable ....D	4.95
AA.COM	SWR curve IBM soft; 121 & V/U ....D	4.95
DM-1	2m/220/440 FM deviation meter	169.95
IDR-96	5w 441.05MHz data Xcv/9600 ....Δ	249.95
Morse University II	Morse code Win soft w/exam	39.95

TRIPP LITE (TRI)

PR-7	5A power supply, 7A surge ....Δ	$ 34.95
PR-10	7.5A power supply, 10A surge ....Δ	44.95
PR-12	9A power supply, 12A surge ....Δ	49.95
PR-20	16A power supply, 20A surge ....Δ	69.95
PR-30	24A power supply, 30A surge ....Δ	99.95
PR-40	32A power supply, 40A surge ....Δ	119.95
PR-50	37A power supply, 50A surge ....Δ	149.95
PR-60	48A power supply, 60A surge ....Δ	169.95
PV-140	140w 12vdc-115vac inverter	49.95
PV-300	300w 12vdc-115vac inverter	74.95
TL-11	Trim Line small low prof 8A ps ....Δ	24.95
TLC-11	Trim Line large low prof 8A ps ....Δ	24.95
ISOBAR-4	4 outlet premium surge suppressor Δ	34.95
ISOBAR-6	6 outlet premium surge suppressor Δ	39.95
ISOBAR-8 ULTRA	8 outlet surge suppress/LEDs	79.95
MT-6+	6 outlet console surge suppressor ..Δ	69.95
SUPER-7	7 outlet surge suppressor	19.95
SUPER-7+TEL	7 outlet/fax modem surge	29.95
TR-6	Surge Alert 6 out super suppressor ...Δ	14.95
TR-6FM	Surge Alert+Tel 6 out super suppress Δ	29.95

TUBES (TUB)

6146W	Tube	$ 26.95
12BY7A	Tube	12.95
3-500G	High dissipation tube (3-500Z)....	119.95
3-500Z	....	229.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Tubes - continued

	AES Price
572B Tube	49.95
811A Tube	19.95

Also see SVETLANA

TUNE BELT (TUN)

HH-1PL Up to 7" HT radio belt Δ	$ 2.95
HH-1PM Up to 6" HT radio belt Δ	4.95
HH-1PS Up to 5" HT radio belt Δ	2.95
HH-2PM To 6" HT radio belt/batt pocket Δ	4.95

US TOWER (UST)

FREE STANDING CRANK-UPS (not for T²X)

TX-438 38' crank-up tower T	1142.95
TX-455 55' crank-up tower †T	1399.95
TX-472 72' crank-up tower T	2832.95
TX-472MDP 72' crank-up w/motor drive †T	3899.95
TX-489MDPL 89' crank-up w/motor drive T	7390.95
TX-3106MDPLSP 106' crank-up/mot drive †T	11699.95

FREE STANDING HD CRANK-UP TOWERS

HDX-538 38' crank-up tower T	1477.95
HDX-555 55' crank-up tower †T	2099.95
HDX-572MDPL 72' crank-up w/motor drive T	6775.95
HDX-589MDPL 89' crank-up w/motor drive T	8869.95
HDX-689MDPL 89' HD crank-up w/motor T	17135.95
HDX-5106MDPL 106' HD crank-up w/motor T	18647.95

COMPACT TMM (Top mt rotor for full retraction)

TMM-433SS 33' crank-up tower T	1219.95
TMM-433HD 33' HD crank-up tower T	1477.95
TMM-541SS 41' crank-up tower T	1599.95

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower	$ 55.95
CX-3 Coax arms (3) for 3-section tower	77.95
CX-4 Coax arms (4) for 4-section tower	122.95
CX-5 Coax arms (5) for 5-section tower	150.95
CX-6 Coax arms (6) for 6-section tower	190.95
HDP Service platform T	813.95
STS-4 Rotor accessory for TX/TMM towers T	211.95
IV-16 Inverted vee arm for MA's	41.95
M-5 2" OD 5' mast extension for MA's	40.95
M-10 2" OD 10' mast T	77.95
M-15 2" OD 15' mast T	115.95
M-20 2" OD 20' mast T	136.95
M-15R 2" OD 15' reinforced mast T	156.95
M-20R 2" OD 20' reinforced mast T	207.95
CM-20 2" OD 20' cromolly mast T	489.95
MD-75 Heavy duty 1 HP motor drive T	997.95
MDP-750* Pull-down drive; TX-472/HDX-555 T	1551.95
MDPL-1000* Pull-down drive; HDX-572 T	2106.95
*Requires MCL-100 or RMC-1000 also	
MRF Mast raising fixture	268.95
MCL-100 Limit switch package	465.95
RMC-1000 Remote control w/limit switch	997.95
RP-3 Rotor plate for 10" section	39.95
RP-4 Rotor plate for 12½" section	47.95
RP-5 Rotor plate for 15" section	52.95
TRX-80 Raising fixture; TX-438/455;HDX-538/555 T	434.95
TRX-80HD Raising fixture;TX-472/489;HDX-572/589 T	571.95
TRX-100HD Raising fixture; HDX-689/5106 T	805.95
TB-2US Thrust bearing; 2" mast w/2 flange holes	110.95

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast †T	$679.95
MA-550 55' crank-up mast †T	1069.95
MA-550MDP 55' crank-up mast w/motor T	2932.95
MA-770 70' crank-up mast T	2529.95
MA-770MDP 70' crank up mast w/motor T	3999.95
MA-850 85' crank-up mast T	3909.95
MA-850MDP 85' crank-up mast w/motor T	5391.95

MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40	$ 59.95
CX-3M Coax arms (3) for MA-550	88.95
CX-4M Coax arms (4) for MA-770	133.95
CX-5M Coax arms (5) for MA-850	160.95

US Tower - continued

	AES Price
MAB-40 Hinged base for MA-40 T	361.95
MAB-550 Hinged base for MA-550 T	432.95
MAB-770 Hinged base for MA-770 T	522.95
MAB-850 Hinged base for MA-850 T	633.95
MAF-40 Raising fixture for MA-40	221.95
MAF-550 Raising fixture for MA-550 T	306.95
MAF-770 Raising fixture for MA-770 T	311.95
MAF-850 Raising fixture for MA-850 T	412.95
MARB-40 Rotor base accessory for MA-40 T	553.95
MARB-550 Rotor base accessory for MA-550 T	654.95
MARB-770 Rotor base accessory for MA-770 T	774.95
MARB-850 Rotor base accessory for MA-850 T	916.95

All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

UNADILLA (See W2AU)

UNIDEN (UNI)

EXS-9110 900MHz dig spread spec cordless D	$ 69.95
XC-3510 25 ch cordless phone D	14.95
EHD-1200GB 900MHz Harley black cordless	74.95
EXA-7950 900MHz cordless ph/dig ans mach	79.95
EXP-7902 900MHz cordless phone	39.95
EXS-9910 900MHz dig spread spec cordless	79.95
EXS-9960 900MHz dig spread spec crdls/call ID	109.95
PRO-340XL 40 ch port CB/rubber ant D	39.95
PRO-350XL 40 ch handheld CB D	79.95
PRO-501AXL AM Mobile CB w/mag ant D	34.95
PRO-501XL AM Mobile CB D	29.95
PC-122XL SSB/AM Mobile CB D	99.95
PC-68LTW AM Mobile CB w/WX alert	99.95
PC-68XL AM Mobile CB	89.95
PC-78LTW AM Mobile CB w/WX alert	129.95
PC-78XL AM Mobile CB	109.95
PRO-510XL AM Mobile CB	44.95
PRO-510AXL AM Mobile CB w/mag mt ant	49.95
PRO-520XL AM Mobile CB	59.95
PRO-538W AM Mobile CB w/WX	69.95
Grant-LT SSB/AM Mobile CB	169.95
Washington SSB/AM Base CB	229.95
ESP-26 External speaker	16.95

UNIDEN BEARCAT

BC-147XLT-1 16 ch prog scanner/instant WX D	$ 89.95
BC-9000XLT 500 ch 25MHz-1.3GHz D	429.95
BCT-10 Pre-prog hiway info sys scan D	89.95
BCT-12 Pre-prog mobile warning scanner D	159.95
BC-244CLT 30 ch scanner w/instant WX	99.95
BC-248CLT 50 ch scanner w/WX alert	109.95
BC-278CLT 100 ch scanner/SAME WX alert	189.95
BC-350A 50 ch prog/service search w/AC ps	119.95
BC-895XLT 300 ch prog scanner/trunking	219.95
BCT-7 Pre-prog warning scan/air/800/AC ps	179.95
BC-002 CTCSS tone board; BC-760XLT	51.95
BC-003 Switch box for BC-002	10.95
BC-004 RF preamp for BC-760XLT	27.95
BC-005 CTCSS tone board; 8500/9000XLT	37.95
BC-60XLT-1 30ch prog pocket; use AA batts	99.95
BC-80XLT 50 ch prog pocket scanner/800	149.95
UA-502 Cig power cord	11.95
AD-100 AC adapter/batt cgr; earlier scanners	16.95
AD-140 Extra charger; BC-100XLT/200XLT	13.95
BP-70 Extra battery for BC-70XLT Δ	27.95
BP-200 Extra battery; BC-200XLT	26.95

Uniden - continued

	AES Price
BP-205 Extra battery; BC-100XLT	26.95
PS-001 DC power cord; original BC-60XLT Δ	6.95
BC-120XLT 100 ch prog pocket w/aircraft D	149.95
SC-150B 100 ch black sport pocket/800 D	169.95
SC-180B 100 ch sport pocket/800 MHz	189.95
SC-200 200 ch sport pocket/800 MHz	219.95
AD-70 Extra charger	10.95
BP-120 Extra battery	18.95
LC-120 Carrying case; BC120XLT/230XLT	19.95
LC-150B Carrying case; SC-150B/180B	19.95
(KOS) QZ/99 Noise reduction headphones	59.99
UA-502 Cig power cord	11.95
BC-235XLT 300ch prog pock/trunk/xtra batt D	179.95
BC-245XLT 300ch pocket/trunk/smart scan	229.95
BP-180 Extra battery	16.95
CRX-120 Desk charger; BC-245XLT	24.95
LC-120 Carrying case	19.95
UA-502 Cig power cord	11.95
BC-3000XLT 400 ch 25MHz-1.3GHz pocket D	369.95
BP-2500 Extra batt; BC2500/3000	63.95
LC-2500 Carrying case; BC-2500/3000XLT	20.95
UA-502 Cig power cord	11.95
NPD-001 National frequency book Δ	9.95
RFD-001 IN/IL/KY/OH/MI/WI freq book	14.95
MC-535 25w 90 ch VHF marine Xcvr	109.95
MC-1010 25w VHF marine Xcvr	139.95
MC-1020 25w VHF marine Xcvr	149.95
HH-940 1w submersible VHF marine hand-held D	119.95
HH-940P 1w submersible VHF marine hand-held	149.95
HH-955 5w VHF marine hand-held	109.95
HH-980 5w 90ch dlx marine hand-held/WX alert D	169.95
HH-985 5w 90ch marine hand-held/SAME WX alert	169.95

Unified Microsystems (UNM)

XT-4 Small size CW memory keyer	$ 79.95
KC-4 Cable set for XT-4 to transceiver	9.95
W9XT Contest card for IBM PC & compatible	149.95
CCC-4 4pin mic contest card cable semi-kit	44.95
CCC-8 8pin mic contest card cable semi-kit	44.95

Universal Towers (UNT)

4-30 4 sq ft wind load 30' alum tower T	$313.95
9-30 9 sq ft wind load 30' alum tower T	422.95
12-30 12 sq ft wind load 30' alum tower T	554.95
21-30 21 sq ft wind load 30' alum tower T	658.95
23-30 23 sq ft wind load 30' alum tower T	872.95
35-30 35 sq ft wind load 30' alum tower T	982.95
4-40 4 sq ft wind load 40' alum tower T	525.95
7-40 7 sq ft wind load 40' alum tower T	660.95
9-40 9 sq ft wind load 40' alum tower T	736.95
12-40 12 sq ft wind load 40' alum tower T	872.95
15-40 15 sq ft wind load 40' alum tower T	974.95
21-40 21 sq ft wind load 40' alum tower T	1082.95
23-40 23 sq ft wind load 40' alum tower T	1296.95
4-50 4 sq ft wind load 50' alum tower T	740.95
5-50 5 sq ft wind load 50' alum tower T	842.95
7-50 7 sq ft wind load 50' alum tower T	947.95
9-50 9 sq ft wind load 50' alum tower T	1053.95
15-50 15 sq ft wind load 50' alum tower T	1399.95
16-50 16 sq ft wind load 50' alum tower T	1510.95
4-60 4 sq ft wind load 60' alum tower T	1054.95
6-60 6 sq ft wind load 60' alum tower T	1293.95
7-60 7 sq ft wind load 60' alum tower T	1376.95
9-60 9 sq ft wind load 60' alum tower T	1476.95
3-70 3 sq ft wind load 70' alum tower T	1374.95
4-70 4 sq ft wind load 70' alum tower T	1689.95
6-70 6 sq ft wind load 70' alum tower T	1719.95
7-70 7 sq ft wind load 70' alum tower T	1796.95
3-80 3 sq ft wind load 80' alum tower T	1853.95
4-80 4 sq ft wind load 80' alum tower T	2145.95
2-90 2 sq ft wind load 90' alum tower T	2223.95
B-14 Base for tower	65.95

Universal - continued

	AES Price
B-18 Base for tower	65.95
B-22 Base for tower	99.95
B-26 Base for tower	127.95
Extra **14" stubs** (between base & tower) .set	12.95
Extra **18" stubs** (between base & tower) .set	24.95
Extra **22" stubs** (between base & tower) .set	40.95
Extra **26" stubs** (between base & tower) .set	40.95
Extra **30" stubs** (between base & tower) .set	60.95
RFM-11 Flat roof mt for guyed tower	44.95
RFM-14 Flat roof mt for guyed tower	44.95
RFM-18 Flat roof mt for guyed tower	69.95
RFM-22 Flat roof mt for guyed tower	93.95
RFM-26 Flat roof mt for guyed tower	124.95
R-11 Rotor mount	31.95
R-14 Rotor mount	47.95
R-18 Rotor mount	63.95

SEE LITERATURE FOR TOWER CONFIGURATIONS

11 Top 11" top tower section .....T	106.95
14 Top 14" top tower section .....T	134.95
18 Top 18" top tower section .....T	243.95
14 Taper 14" taper tower section .....T	117.95
18 Taper 18" taper tower section .....T	211.95
22 Taper 22" taper tower section .....T	315.95
26 Taper 26" taper tower section .....T	424.95
11 Straight 11" straight tower section .....T	104.95
14 Straight 14" straight tower section .....T	117.95
18 Straight 18" straight tower section .....T	211.95
22 Straight 22" straight tower section .....T	315.95
26 Straight 26" straight tower section .....T	424.95
HD35-40 35 sq ft wind load 40' alum tower T	1512.95
HD21-50 21 sq ft wind load 50' alum tower T	1613.95
HD9-60 9 sq ft wind load 60' alum tower ...T	1692.95
HD16-60 16 sq ft wind load 60' alum tower T	2038.95
HD21-60 21 sq ft wind load 60' alum tower T	2147.95
HD8-70 8 sq ft wind load 70' alum tower ...T	1903.95
HD12-70 12 sq ft wind load 70' alum tower T	2358.95
HD17-70 17 sq ft wind load 70' alum tower T	2572.95
HD21-70 21 sq ft wind load 70' alum tower T	2680.95
HD8-80 8 sq ft wind load 80' alum tower ...T	2436.95
HD9-80 9 sq ft wind load 80' alum tower ...T	2541.95
HD11-80 11 sq ft wind load 80' alum tower T	2887.95
HD12-80 12 sq ft wind load 80' alum tower T	2891.95
HD16-80 16 sq ft wind load 80' alum tower T	3104.95
HD4-90 4 sq ft wind load 90' alum tower ...T	2536.95
HD8-90 8 sq ft wind load 90' alum tower ...T	2992.95
HD11-90 11 sq ft wind load 90' alum tower T	3421.95
HD4-100 4 sq ft wind load 100' alum tower T	3397.95
HD8-100 8 sq ft wind load 100' alum tower T	3635.95
B-30 Base for HD tower	199.95
RFM-30 Flat roof mt for guyed tower	174.95
1-5/8SC Flange bearing	94.95
2-3/16SC Flange bearing	108.95
Top Plate Flange plate welded to top section	23.95

SEE LITERATURE FOR TOWER CONFIGURATIONS

30 Taper 30" taper tower section .....T	533.95
30 Straight 30" straight tower section .....T	533.95
1-1/4" OD x 5 ft aluminum mast .....T	22.95
1-1/4" OD x 10 ft aluminum mast .....T	31.95
1-1/2" OD x 10 ft aluminum mast .....T	39.95
2" OD x 8 ft aluminum mast	47.95
2" OD x 16 ft aluminum mast .....T	94.95

All UNIVERSAL TOWERS products are drop-shipped (shipped direct to you from the UNIVERSAL TOWERS factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Mt. Clemens, Michigan via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

Universal - continued

	AES Price

VALOR (See PRO AM)

VANCO (VCO)

370052 3½" digital multimeter	$ 19.95
SWR-1 SWR/field strength meter	19.95
SWR-3 Mini SWR meter	14.95

VAN GORDEN (VAN)

Hi-Q 1:1 balun	$ 14.95
Hi-Q 4:1 balun	14.95
Antenna center insulator	6.95
Antenna end insulator .....pair	4.95
Dog bone type antenna insulator .....each	.95
NR-100 Nylon antenna guy rope .....100 ft.	4.95
NR-1,000 Nylon ant guy rope .....1,000 ft.	44.95
D-80 80m 130' wire dipole antenna	32.95
SD-80 Short 90' 80m dipole	36.95
D-40 40m 66' wire dipole antenna	29.95
SD-40 Short 45' 40m dipole	34.95
D-20 20m 33' wire dipole antenna	28.95
D-15 15m 22' wire dipole antenna	27.95
D-10 10m 16' wire dipole antenna	26.95
All Bander Dipole 160-10m (use tuner) 135' ant	29.95
Shorty All Bander 160-10m (use tuner) 70' ant	44.95
G5RV Flat-top 5-band 102' ant/xmfr/100' cable	50.95
G5RV-E Flat-top 5-band 102' ant/31' twinlead	28.95
G5RV JR Flat-top 4-band 52' ant/17' twinlead	24.95
G5RV-M Flat-top 5-band 204' ant/65' twinlead	50.95
N connector Type N connector for 9913	4.95
#14 Stranded hard drawn ant wire ....**100** ft.	11.95
#14 Stranded hard drawn ant wire ....**150** ft.	16.95
300 ohm 1kw transmitting twinlead ...**100** ft.	19.95
450 ohm 18ga solid ladderline .....**100** ft.	14.95
450 ohm 18ga solid ladderline .....**1,000** ft.	109.95
450 ohm 14ga stranded ladderline .....**100** ft.	29.95
450 ohm 14ga stranded ladderline ...**1000** ft.	229.95
(WA1) WA1FFL **Ladder-Loc** 450 ohm ctr ins	12.95
RG-213 Non-contaminating .....per ft.	.49
RG-213/500 Non-contaminating .500 ft. Roll	179.95
8X-1.5ST 1.5' RG-8X coax/silver teflon PL259s	7.95
8X-3ST 3' RG-8X coax/silver teflon PL259s ...	8.95
8X-6ST 6' RG-8X coax/silver teflon PL259s ...	10.95
8X-12ST 12' RG-8X coax/silver teflon PL259s	11.95
8X-25ST 25' RG-8X coax/silver teflon PL259s	15.95
8X-50ST 50' RG-8X coax/silver teflon PL259s	24.95
8X-75ST 75' RG-8X coax/silver teflon PL259s	31.95
8X-100ST 100' RG-8X coax/silver teflon PL259s	37.95
213-3ST 3' RG-213 coax/silver teflon PL259s	11.95
213-6ST 6' RG-213 coax/silver teflon PL259s	14.95
213-12ST 12' RG-213 coax/silver teflon PL259s	18.95
213-25ST 25' RG-213 coax/silver teflon PL259s	25.95
213-50ST 50' RG-213 coax/silver teflon PL259s	38.95
213-75ST 75' RG-213 coax/silver teflon PL259s	54.95
213-100ST 100' RG-213 coax/silver teflon PL259s	72.95

VECTRONICS (VEC)

VC-300M 300w mobile antenna tuner	$ 99.95
VC-300DLP 300w antenna tuner	149.95
VC-300D 300w digital antenna tuner	179.95
HFT-1500 1.5kw antenna tuner	399.95
AT-100 .3-30 MHz active antenna/tuner	79.95
HPF-1 High pass filter, 75 or 300 ohms	24.95
HPF-2 Deluxe high pass filter, 75 or 300 ohms	29.95
LP-30 1.5kw low pass filter	49.95
LP-2500 2.5kw low pass filter	79.95
CK-200 Deluxe keyer	79.95
DL-300M 300w dummy load	44.95
DL-650M 1.5kw dummy load	74.95
DL-2500 2.5kw dummy load	179.95

Vectronics - continued

	AES Price
PM-30HF 300/3kw HF wattmeter	79.95
PM-30UV 30/300w VHF/UHF wattmeter	89.95
AC-12 12vdc 300ma adapter	14.95
PS-30F 25A power supply, 30A surge	129.95
PS-50F 35A power supply, 50A surge	199.95
121K Crystal radio set kit	19.95
131K Aircraft receiver kit	29.95
201K CW keyer kit	24.95
412K Nicad/NiMH battery conditioner kit	49.95
422K FM broadcast SCA decoder kit	27.95
820K Super CW audio filter kit, 750Hz center	19.95
821K Super CW audio filter w/1w amp kit	29.95
830K Super SSB audio filter kit	19.95
841K Tunable SSB/CW audio filter kit	34.95
1140K 40m receiver kit	29.95
1240K 40m QRP CW transmitter kit	29.95
1290K AM radio transmitter kit	29.95
1294K TV transmitter kit	27.95
1402K 2m preamp kit	17.95
1422K 220MHz preamp kit	17.95

VENTENNA (FOR)

VT-14 2m Ventenna 3' 2.6 db base ant	$ 63.95
VT-15S Scanner Ventenna 3' 2.6 db base	63.95
VT-22 220 Ventenna 25" 2.6 db base ant	63.95
VT-27 2m/440 Ventenna base antenna	94.95
VT-44 440 Ventenna 14" 2.6 db base ant	63.95

VIBROPLEX (VIB)

090 Original Gold Bug	$299.95
100 Original Presentation Super deluxe bug	269.95
105 Original Deluxe Bug	199.95
110 Original Standard Bug	159.95
113 VibroKeyer Gold Paddle	269.95
115 VibroKeyer Deluxe Paddle	179.95
120 VibroKeyer Standard Paddle	139.95
123 Iambic Gold Paddle	269.95
125 Iambic Presentation Paddle	239.95
130 Iambic Deluxe Paddle	179.95
135 Iambic Standard Paddle	139.95
145 Triangular Brass Racer Iambic paddle	99.95
150 Square Brass Racer Iambic paddle	139.95
153 Gold straight key	269.95
155 Standard straight key	139.95
160 Deluxe straight key	179.95
162 Gold Hand key/Iambic Paddle double	359.95
163 Gold Hand key/VibroKeyer Paddle double	359.95
165 Deluxe Hand key/Iambic Paddle double	319.95
170 Dlx Hand key/VibroKeyer Paddle double	319.95
175 Standard Hand key/Iambic Paddle double	269.95
180 Std Hand key/VibroKeyer Paddle double	269.95
185 Square Racer Deluxe Iambic paddle	134.95
190 Square Racer Standard Iambic paddle	109.95
195 Blue Racer 2000 Millennium Bug	179.95
200 Code Warrior Junior Paddle	99.95

WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach	$ 12.95

W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor	$ 24.95
W2AU Beam Balun, 1:1	24.95
W2AU 4:1 160-10m balun, lightning arrestor	24.95
W2DU-HF 1:1 1.8-30 MHz choke balun	26.95
W2DU Beam Balun 40-10m 1:1 choke balun	26.95
W2DU-VHF 1:1 30-250 MHz choke balun	26.95
HA AN-sulator center insulator	9.95
HE END-sulator end insulators .....pair	4.95
KW-80CW Reyco 80m CW ant traps .....pair	48.95
KW-80F Reyco 75m phone ant traps .....pair	48.95
KW-40 Reyco 40m antenna traps .....pair	42.95
KW-30 Reyco 30m antenna traps .....pair	42.95
KW-20 Reyco 20m antenna traps .....pair	41.95
KW-17 Reyco 17m antenna traps .....pair	41.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

W2AU - continued

	AES Price
KW-15 Reyco 15m antenna traps .....pair	41.95
KW-12 Reyco 12m antenna traps .....pair	41.95
KW-10 Reyco 10m antenna traps .....pair	41.95
W2AU/W2VS 5-band ant kit (use tuner)	85.95

W5YI (W5Y)

GCSP Gordon West Gen code tapes/manual ....D	$ 14.95
GUS General Upgrade Software	34.95
GWAM Gordon West Advanced study manual D	11.95
GWAW Gordon West Advanced theory tapes D	19.95
GWE6 Gordon West 6 ea 10-28 wpm code tapes	29.95
GWEM Gordon West Extra study manual	11.95
GWET Gordon West Extra code tapes	9.95
GWEW Gordon West Extra written theory tapes	19.95
GWG6 Gordon West 6 ea 5-16 wpm code tapes	29.95
GWGM Gordon West General study manual ...	11.95
GWGT Gordon West General code tapes	9.95
GWGW Gordon West General theory tapes	9.95
GWN6 Gordon West 6 ea 0-7 wpm code tapes .	29.95
GWNT Gordon West Novice Code Teacher	9.95
GWNW Gordon West Novice theory tapes ....D	9.95
GWT6 Gordon West No-Code Tech theory tapes	29.95
GWTM Gordon West No-Code Tech manual	12.95
GWTW Gordon West Tech theory tapes	9.95
HOS Ham operator software package	39.95
NCSW No-code ham radio WIN soft package	34.95
NCVP Ham No-Code video seminar/manual D	31.95
QP3 Elements 2/3/4 New Question Pools	9.95
TPG Tech/TechPlus/General manuals/soft/code	49.95

WAHL (WAH)

7740 Quick charge cordless soldering iron kit	$ 47.95

WALNUT CREEK (WAL)

Antennas Antennas CD-ROM .....D	$ 29.95
Garbo 250 MB DOS + 150 MB Mac .....D	.99
Ham QRZ US & Canada calls plus programs.	29.95
Hobbes 1,000's of OS/2 applications .....Δ	.99

WELLER (WEL)

7200PK 75w soldering gun kit	$ 27.95
EC-1002-1 40w temp controlled solder stn ..	199.95
WP-25 25w professional soldering iron	32.95
W-60P 60w temp controlled soldering iron ...	63.95
WSTA3 Pyropen portable LP soldering iron	99.95
WST2 Pyropen Jr. portable butane iron	87.95
WTCPT 60w temp controlled soldering stn	119.95

WILSON (WIL)

Little Wil Magnetic mt CB antenna	$ 29.95
Trucker 2000 Black mobile ⅜-24 CB whip ...	54.95
W-1000 Magnetic Black mobile CB antenna	72.95
W-1000 Roof Top Black mobile CB antenna .	54.95
W-1000 Trunk Lip Black mobile CB antenna	62.95

WINEGARD (WIN)

CX-0625 25' RG-6 TV coax w/F connectors ...	$ 10.95
CX-0650 50' RG-6 TV coax w/F connectors ...	15.95
CX-0675 75' RG-6 TV coax w/F connectors ...	19.95
CX-6100 100' RG-6 TV coax w/F connectors .	24.95
DS-2000 Universal pipe/tower mt; TV ant	16.95
GS-2000 Amplified Sensar II TV antenna	79.95
LB-2000 Dual output digital LNBF	75.95
PR-7010 22 el 66.5" boom Prostar TV ant	39.95
PR-7032 33 el 103.25" boom Prostar TV ant	64.95
PR-7042 43 el 149.75" boom Prostar TV ant	99.95
TV-2900 Outdoor TV matching transformer	2.95
SM-2200 Base scanner ant/50' cbl/F connectors	45.95

X-10 (X10)

HOME AUTOMATION/SECURITY

AM-466 3-pin grounded appliance module Δ	$ 10.95
AM-486 2-pin polarized appliance module Δ	9.95
CK-11A X-10 ActiveHome automation/win soft Δ	59.95
DS-10A Long range door/window sensor ....Δ	14.95
DW-534 Door/window sensor .....Δ	9.95

X-10 - continued

	AES Price
KF-574 Key fob security remote control .....Δ	9.95
LM-465 Lamp module .....Δ	9.95
MC-460 6 function 8 unit mini controller ...Δ	4.95
PH-508 Remote 110 db siren .....Δ	19.95
PK-9 REX-10 barking dog alarm .....Δ	39.95
PR-511 2 floodlite motion detect/rem light Δ	29.95
RW-694 4 unit wireless wall switch .....Δ	4.95
RW-724 3 unit+dimmer wirels wall switch Δ	4.95
RW-6900 Wireless wall switch set .....Δ	9.95
SC-503 6 function 16 unit maxi controller .Δ	9.95
SH-10A Indoor 90 db remote alarm siren ...Δ	9.95
SP-554A Wireless motion detector .....Δ	29.95
SR-227 Wall receptacle mod/custom plate .Δ	9.95
TH-2807 Thermostat set-back controller ....Δ	9.95
WS-467 Wall switch module .....Δ	9.95

YAESU (YAE)

FT-1000MP 9-band Xcvr/EDSP/tuner/ps	2799.95
DVS-2 Digital voice recording module	219.95
FH-1 Remote control keypad	88.95
MD-100A8X Desk mic w/tone control	129.95
MH-31B8 Extra hand microphone	39.95
SP-8 External speaker w/filters	159.95
LL-7 Phone patch unit for SP-8	139.95
TCXO-4 TCXO unit	99.95
TCXO-6 Deluxe TCXO unit, 0.5 ppm	174.95
YF-110CN 250 Hz 3rd IF main Rcvr CW filt	144.95
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt	144.95
YF-114CN 250 Hz 2nd IF main Rcvr CW filt	144.95
YF-114SN 2 KHz 2nd IF main Rcvr SSB filt	144.95
YF-115C 500 Hz CW Collins mech filter	159.95
YH-77ST Open-air type stereo headphones	51.95
FT-1000 Xcv/ps/tune/kyr/mic/XFAB special order	3499.95
BPF-1 Dual bandpass filt; crossband rcv Δ	179.95
TCXO-1 Temp compensated xtal osc .....Δ	179.95
XF-C 2.4KHz SSB xtal filt (455KHz) .....Δ	139.95
YF-110SN/XF-D 2 KHz SSB xtal filt (455 KHz)	144.95
YF-115C 500 Hz CW Collins mech filter	159.95
FT-1000D Dlx Xcvr w/BPF/TCXO/XF-ABCDE ..	4199.95
DVS-2 Digital voice recording module	219.95
FIF-232C Interface for RS-232	95.95
MD-100A8X* Desk mic w/tone control	129.95
*Cable needed for FT-1000D; contact service for info	
SP-5 External spkr w/audio filter	144.95
LL-5 Phone patch unit for SP-5	129.95
XF-455MC 600Hz CW filter (455KHz); subrcvr	144.95
YF-110CN/XF-F 250 Hz CW xtal filter (455 KHz)	144.95
YH-77ST Open-air type stereo headphones	51.95
FT-920 9-band Xcvr/AF-DSP/tuner/6m/kyr †	1369.95
FM-1 FM unit FREE with FT-920! Limited Time!	
FP-1023 23A switching ps w/fan, 25A surge	159.95
FP-1030A 25A ps, 30A surge w/meters	249.95
FM-1 FM unit	62.95
MD-100A8X Desk mic w/tone control	129.95
SP-8 External speaker w/filters	159.95
LL-7 Phone patch unit for SP-8	139.95
TCXO-7 TCXO unit	99.95
YF-116A 6 KHz AM filter	119.95
YF-116C 500 Hz CW filter	119.95
YH-77ST Open-air type stereo headphones	51.95
FT-847 HF/6m/2m/430 Earth Station Xcvr/mic †	*1499.95
***Price w/instant coupon; coupon expires 6/30/00**	
FP-1023 23A switching ps w/fan, 25A surge	159.95
FP-1030A 25A ps, 30A surge w/meters	249.95
ATAS-100 HF/6/2/430 motorized mob ant ..	319.95
ATBK-100 Antenna base kit; use w/base mt	89.95
CT-61 Interface cable; FT-847 to amp	15.95
FC-20 Automatic antenna tuner	269.95
FVS-1A Voice synthesizer	43.95
MD-100A8X Desk mic w/tone control	129.95
MH-36D8 DTMF mobile microphone	60.95
MMB-66 Mobile mounting bracket	39.95
SP-8 External speaker w/filters	159.95
LL-7 Phone patch unit for SP-8	139.95

Yaesu - continued

	AES Price
YF-115C 500 Hz CW Collins mech filter	159.95
YF-115S-02 2.5 KHz SSB Collins mech filt	159.95
YH-77ST Open-air type stereo headphones	51.95
FT-840 Xcvr/SW Rcvr	739.95
FP-1023 23A switching ps w/fan, 25A surge	159.95
FP-1030A 25A ps, 30A surge w/meters	249.95
FC-10 External coax fed auto tuner	379.95
FC-800 External long wire auto tuner	439.95
FIF-232C Interface for RS-232	95.95
FM-747 FM unit	62.95
MD-100A8X* Desk mic w/tone control	129.95
*Cable needed for FT-840; contact service for info	
MMB-20 Mobile mount	34.95
SP-6 External speaker w/filter	144.95
SP-7 Mobile speaker	40.95
TCXO-4 TCXO unit	99.95
YF-112A 6 KHz AM filter	119.95
YF-112C 500 Hz CW filter	119.95
YH-77ST Open-air type stereo headphones	51.95
FT-100 Mini HF Xcvr/6m/2m/440/DSP/TTP ....†	*1099.95
***Price w/instant coupon; coupon expires 6/30/00**	
FP-1023 23A switching ps w/fan, 25A surge	159.95
FP-1030A 25A ps, 30A surge w/meters	249.95
ATAS-100 HF/6/2/430 motorized mob ant ..	319.95
ATBK-100 Antenna base kit; use w/base mt	89.95
CT-39 Packet cable	9.95
CT-58 Band data cable	29.95
CT-62 CAT interface cable	29.95
FC-20 Automatic antenna tuner	269.95
FTS-27 CTCSS decoder unit	47.95
MMB-62 Remote front panel mounting bkt	39.95
MMB-67 Quick release bracket	29.95
SP-6 External speaker w/filter	144.95
LL-5 Phone patch unit for SP-6	129.95
SP-7 Mobile speaker	40.95
TCXO-8 TCXO unit	99.95
XF-117A 6 KHz AM filter	119.95
XF-117C 500 Hz CW filter	149.95
XF-117CN 300 Hz CW filter	149.95
Suggest dealer installation of filters in FT-100; only 2 sockets; use XF-117C & XF-117A or XF-117CN	
YH-77ST Open-air type stereo headphones	51.95
YSK-100 Separation kit	79.95
CT-11 Cable - FL-7000 to FT-890/900 .....Δ	19.95
CT-20 Mic cable for use with MD-1C8 .....D	4.95
CT-26 Mic adapter cable; modular to 8-pin .Δ	22.95
E-767 Cable - FL-7000/767/990/1000/MP .....Δ	16.95
FAS-1-4R Remote antenna selector	129.95
FRB-757 External relay box	31.95
FX-1 Transceiver-FAX interface/controller ...D	9.95
MH-31A8J Extra hand mic; FT-900 .....Δ	39.95
YA-30 1.8-30 MHz broadband dipole ant	239.95
YH-77ST Open-air type stereo headphones ...	51.95
YS-60 1.8-60 MHz 2kw PEP wattmeter	129.95
YS-500 140-520 MHz 200w PEP wattmeter ..	109.95
YSK-900 20' rem mtg kit/tnk mtg bkt; FT-900 Δ	68.95
Quadra System VL/VP1000 160-6 amp/ps/tuner	3999.95
MR-1000 Quadra system mounting rack ...	299.95
FRG-100B .1-30 MHz shortwave receiver	599.95
FM Unit-100 FM unit.....	47.95
TCXO-4 TCXO unit	99.95
YF-110CN/XF-F 250 Hz CW xtal filter	144.95
YF-115C 500 Hz CW Collins mech filter	159.95
VR-500 .1M-1.3G AM/FM/SSB hand/cell blkd	339.95
51R Clone/CT-35 Clone cable; VR-500	9.95
ADMS-3 Windows programming software ..	39.95
CSC-72 Soft case for VR-500	19.95
EDC-5B DC adapter w/noise filter	26.95
EDC-6 DC adapter; plug & wire only	7.95
FNB-59 Nicad battery for VR-500	29.95
NC-60B Wall charger	14.95
E-736 DC cable for FT-736R .....Δ	16.95
FEX-736-50 6m module for FT-736R .....Δ	279.95
FEX-736-220 220 MHz module; FT-736R ...Δ	309.95

Yaesu - continued

	AES Price
FEX-736-1.2 1.2 GHz module for FT-736R ..Δ	539.95
FTS-8 Encoder/decoder for FT-736R .....Δ	62.95
Keyer-B Electronic keyer unit; FT-736R .....Δ	26.95
TV-736 1.2 GHz ATV converter for FT-736R .Δ	179.95
FT-290R Mk II 25w 2m FM/SSB Xcvr/TTP D	559.95
CSC-19 Soft case	16.95
FBA-8 Holder for 9 C-cell nicads	39.95
NC-26B Wall charger for FBA-8	9.95
FTS-7A Encoder/decoder; current units	44.95
AD-3 100w 2m/440 duplexer	52.95
DVS-3 Dig voice unit; FT-2200/5200/6200/7200 D	29.95
FRC-4 DTMF pager unit; FT-5200/6200 .....D	4.95
MH-27B8 8-pin TTP mic; FT-5200/6200 .....Δ	65.95
MW-2* Wireless rem cont mic; 5200/6200 .D	39.95
* Requires jumper modification	
MMB-53 Mobile mtg bkt for MW-2 .....Δ	4.95
YSK-1L Sep kit w/18' cable; FT-5200/6200 Δ	58.95
FT-8100R 50/35w 2m/440 FM Xcvr/TTP ....†	429.95
ADMS-2D Windows programming software	39.95
CT-39 Packet cable	9.95
FTS-22 CTCSS decode unit	68.95
MEK-2 Mic extension kit	42.95
MMB-60 Quick release mobile bracket	31.95
YSK-8100 Remote separation kit	69.95
FT-90R 50/35w 2m/440 micro FM Xcvr	399.95
ADMS-2E Windows programming software	39.95
MEK-2 Mic extension kit	42.95
SP-7 External speaker	40.95
YSK-90 Remote separation kit	64.95
MH-39A6J Extra regular mic; FT-8500 .....Δ	94.95
YSK-8500 Remote separation kit; FT-8500 .Δ	69.95
FT-3000M 70w 2m FM Xcvr/TTP/ext rcv	399.95
ADMS-2D Windows programming software	39.95
CT-39 Packet cable	9.95
DVS-4 Digital voice recording module	47.95
FTS-17A CTCSS decode unit	47.95
2400 Mic Cable 2' packet cable; 2400H/2500M Δ	9.95
FRC-6 DTMF pager unit; FT-2500M/7400H D	4.95
MH-27A8J Early TTP mic/modular plug; 2500M Δ	60.95
MH-36C8J Extra TTP mic; late FT-2500M	60.95
FT-2600M 60w compact 2m FM Xcvr/TTP mic †	209.95
ADMS-2E Windows programming software	39.95
SP-7 External speaker	40.95
FT-1500M 50w 2m FM Xcvr/TTP/1200/9600	229.95
ADMS-2F Windows programming software	39.95
MH-36C8J Extra TTP microphone	60.95
SP-7 External speaker	40.95
FP-712/Vertex 10A switching ps, 12A surge D	89.95
FP-1023 23A switching ps w/fan, 25A surge	159.95
FP-1030A 25A ps, 30A surge w/meters	249.95
LF-1 Mobile 13A DC noise filter	26.95
MLS-100 Mobile speaker	45.95
SP-3 Small mobile speaker	23.95
SP-4 Mobile speaker	31.95
VXR-5000VADC/Vertex 25w 2m FM rptrr	1199.95
VXR-5000V/TA/Vertex 25w 2m FM rptr/ps	1399.95
VXR-5000UCDC/Vertex 25w 440 FM rptr	1199.95
VXR-5000U/TC/Vertex 25w 440 FM rptr/ps	1399.95
Repeaters require service dept. set-up; $72 minimum	
COM ID-8 Auto morse code ID'er	69.95
MR-KIT1 19" rack mtg kit; VXR repeater	199.95
VXD-40UB/Vertex 440 duplexer (untuned)	199.95
Tuning charge; duplexer (specify freqs)	50.95
VX VPL-1D/Vertex PC prog cable & software	95.95

Accessories for 09-series/03-series

FNB-4A 500ma 12v battery .....Δ	$ 62.95
FTS-6 Encoder/decoder; 09-series .....D	4.95
MMB-21 Mobile bracket; also for 727R .....D	4.95

Accessories for FT-26/415/416/530

CA-8 2 chg sleeves; NC-50/FT-416/530.....D	$ 1.95
CLIP-3 Belt clip .....Δ	4.95
CSC-50 Vinyl case; 415/416/FNB25 .....D	1.95

Yaesu - continued

	AES Price
FBA-12 AA cell holder .....Δ	19.95
FT-23R-12 5w 2m FM HT/FNB-12S/cgr .....D	149.95
FT-23 Mk II/12 5w 2m FM HT/FNB-12S/cgr	159.95
FT-33R 5w 220 FM HT/batt/cgr .....†	249.95
FT-411 Mk II/12 5w 2m HT/FNB-12S/cgr/TTP	179.95
FT-911 1w 1.2 GHz FM HT/batt/cgr/TTP	459.95

Accs for FT-23/33/73/411/811/470/911

CA-7 2 charging sleeves; NC-50/411E/470	$ 27.95
CLIP-1 Belt clip	7.95
CSC-24S Soft case; FT-23/33/73 w/FNB-12S ..D	.99
CSC-28 Soft case; FT-23/33/73 w/FNB-12S	16.95
CSC-35 Soft case; FT-411/811/911/FNB-17 ..D	.99
CSC-36 Soft case; FT-411/FNB-10/FBA-10 ..D	4.95
CSC-37 Soft case; FT-411 w/FNB-12S/14	16.95
CSC-48 Soft case; FT-23/33/73 w/FNB-17 ..D	2.95
FBA-17 AA battery holder	19.95
FNB-12S 600ma 12v (5w) battery	55.95
FNB-14 1000ma 7.2v battery	55.95
FNB-17 600ma 7.2v battery	34.95
FTS-12 Encoder/decoder for FT-23/33/73	60.95
FTS-17A Encoder/decoder; FT-411	47.95
FTT-4 DTMF (TTP) unit for FT-23/33/73 .....D	9.95
MH-30C2B Speaker/microphone	45.95
MH-34C2B Compact lapel speaker/mic	30.95
MH-35A2B Spkr mic/clip/earphone jack .....D	29.95
MMB-46 Mobile hanger for FT-470 .....D	4.95
NC-28B Extra wall charger for FNB-17	14.95
NC-34B Wall charger for FNB-14	14.95
NC-65B/NC-18B Wall charger for FNB-12S	14.95
PA-6 Mobile DC adapter/cgr; FNB-14/17	31.95
YH-2 Lightweight VOX headset w/mic	30.95
FT-50RD/41B 5w 2m/440 HT/FNB41/FTT-12 †	239.95
ADMS-1E Windows programming software	39.95
CA-15 Charging stand; FT-10/40/50	27.95
NC-60B Wall charger; FNB-40/41/CA-15	14.95
CLIP-10 Spring loaded belt clip	7.95
CN-2 BNC to SMA adapter: FT-10/40	8.95
CN-3 BNC to SMA adapter: FT-50R	8.95
CSC-68 Soft case; FNB-41/FBA-15	16.95
CSC-69 Soft case; FNB-40	16.95
CSC-V10 Cordura soft case; FT-10/40/50	27.95
CT-27A Cloning cable	10.95
CT-30 Microphone Y adapter	10.95
EDC-5B DC adapter w/noise filter	26.95
EDC-6 DC adapter; plug & wire only	7.95
FBA-15 4 AA battery holder	19.95
FBA-21 6 AA battery holder	38.95
FEP-10 Earphone	9.95
FNB-40 650ma 6v battery .....D	29.95
FNB-41 600ma 9.6v (5w) battery	58.95
FNB-42 1100ma 9.6v (5w) battery	62.95
FNB-V47 1100ma 7.2v battery w/belt clip	55.95
PA-17 Battery cable extender	57.95
FNB-49 600ma 6v battery .....D	9.95
FTT-10/A16 16-key pad/enc/30ch; 10/40 Δ	9.95
FTT-12 16-key keypad/dec/DVRS; FT-50R ....D	19.95
LCC-10C Leather case/belt clip; 50/FNB41/V47	31.95
LCC-10S Leather case/swivel; 50/FNB41/V47	31.95
LCC-11S Leather case/swivel; 50/FNB40 Δ	29.95
MH-30C2B Speaker/mic; use CT-30 also	45.95
MH-34B4B Speaker/mic	30.95
MH-37A4B Earpiece/microphone	30.95
NC-50 1-hour dual slot charger	92.95
CA-14 2 charging sleeves; NC-50	26.95
RH-1 Black rubber case protector	7.95
RH-1R Orange rubber case protector	7.95
VC-25 VOX headset	62.95
YHA-54 Replacement 2m/440 BNC duck	16.95
FT-41R/HP 3.5w 440 HT/FNB-38/cgr/TTP .D	129.95
51R Clone/CT-35 Clone cable; FT-11/41/51R	9.95
ADMS-1E Windows programming software	39.95
CSC-61 Case; 11R/41R/FNB33/38/FBA14	16.95
CSC-62 Soft case; FT-11R/41R/FNB-31 ...†	12.95

Yaesu - continued

	AES Price
CSC-66 Soft case; FT-51R/FNB-33/38/FBA-14	19.95
CSC-67 Soft case for FT-51R/FNB-31	19.95
EDC-12 DC adapter; FT-11R/41R/51R	38.95
FBA-14 AA battery holder	19.95
FNB-31 600ma 4.8v battery	47.95
FNB-33 1200ma 4.8v battery	62.95
FNB-38 600ma 9.6v battery	75.95
FTS-26 CTCSS decoder	47.95
MH-29A2B LCD disp spkr/mic; 530/51R .Δ	89.95
MH-30C2B Speaker/microphone	45.95
MH-34C2B Compact lapel speaker/mic	30.95
MH-35A2B Spkr mic/clip/earphone jack ..D	29.95
MH-37B2B Earpiece/microphone	30.95
NC-34B Wall charger for FNB-33	14.95
NC-50 1-hour dual slot charger	92.95
CA-10 2 charging sleeves; NC-50/11/41/51	14.95
NC-55B Wall charger for FNB-31	14.95
NC-65B/NC-38B Wall charger for FNB-38	14.95
VC-22 Headset w/VOX	62.95
YHA-54 Replacement 2m/440 BNC duck	16.95
VX-1R 500mw 2m/440 submini HT/lith ion †	169.95
CSC-71 & FBA-20 FREE w/VX-1R! Limited Time!	
ADMS-1E Windows programming software	39.95
CN-3 BNC to SMA adapter	8.95
CSC-71 Soft case for VX-1R .....†	16.95
CT-44 2-pin spkr/mic adapter	12.95
EDC-15 DC adapter .....†	19.95
FBA-20 Battery holder .....†	19.95
FEP-10 Earphone	9.95
FNB-52LI Extra 700ma 3.6v lith ion batt	36.95
MH-34B4B Speaker/mic	30.95
MH-37A4B Earpiece/microphone	30.95
NC-66B Extra 2 hour wall charger	18.95
VC-25 VOX headset	62.95
VX-5R 5w 6m/2m/440 FM HT/lith ion batt †	319.95
ADMS-1E Windows programming software	39.95
CD-15 Charger stand (use with NC-72B)	29.95
CN-3 BNC to SMA adapter	8.95
CSC-73 Soft case for VX-5R	19.95
CT-27A Cloning cable	10.95
CT-44 2-pin spkr/mic adapter	12.95
EDC-5B DC adapter w/noise filter	26.95
EDC-6 DC adapter; plug & wire only	7.95
FBA-23 2 AA cell battery case	25.95
FNB-58LI Extra 1100ma 7.2v lith ion batt	69.95
MH-34B4B Speaker/mic	30.95
MH-37A4B Earpiece/microphone	30.95
NC-72B Extra wall charger	18.95
SU-1 Altitude/barometric pressure sensor	35.95
VC-25 VOX headset	62.95
VX-150/Vertex 5w 2m HT/batt/cgr/16key TTP †	169.95
CN-3 BNC to SMA adapter	8.95
CT-27A Cloning cable	10.95
CT-44 2-pin spkr/mic adapter	12.95
EDC-5B DC adapter w/noise filter	26.95
EDC-6 DC adapter; plug & wire only	7.95
FBA-25 6 AA cell battery case	48.95
FNB-V57 1100ma 7.2v battery	70.95
FNB-64 Extra 700ma 7.2v battery	43.95
MH-34B4B Speaker/mic	30.95
MH-37A4B Earpiece/microphone	30.95
NC-72B Extra wall charger	18.95
NC-73B 1-hour rapid charger	72.95
VC-25 VOX headset	62.95

ANTENNA ROTORS

G-450A 10 sq ft antenna rotor/6-wire	$259.95
G-550 12 sq ft elevation rotor/6-wire	299.95
G-800S Med/hvy duty 450 degree 17sq ft/5-wire	339.95
G-800SDX Med/hvy duty 17sq ft/presets/5-wire	429.95
G-1000SDX HD 450 degree 23sq ft/presets/5-wire D	519.95
G-1000DXA HD 450 degree 23sq ft/presets/5-wire	519.95
G-2800SDX HD 450 degree 34sq ft/presets/6-wire	1139.95
G-5500 11 sq ft azimuth/elevation rotor//2x6-wire	629.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411
Browse Our Store On-Line at www.aesham.com

Yaesu - continued

	AES Price
GA-2500 Tower absorber joint;450A/XL/800S/SDX	79.95
GA-3000 Tower absorber joint; 1000/2800SDX	119.95
GC-038 Mast clamp; 450/800/1000/5400B/5500	31.95
GC-048 Mast clamp; G-2800SDX	47.95
GL-33 Mast adjustment plate	14.95
GS-050 50mm thrust bearing; mast 1¼-2"	31.95
GS-065 65mm thrust bearing; mast 1½-2½"	47.95
GS-23 Interface; DXA/SDX rotors	299.95
GS-232 Interface for G-5400B/5500	469.95
Sep Kit Separation kit for G-5400B/5500	23.95

See BELDEN for rotor cable

CONSUMER ELECTRONICS

VXA-100-6/41B Aviator Pro 5w air HT ††	$299.95
VXA-100-16/41B Aviator Pilot 5w air HT/VOR	499.95
VXF-10/Vertex FRS handheld w/WX †	69.95
CLIP-8 Belt clip for VXF-1 Δ	2.95
EDC-15 DC adapter †	19.95
FEP-10 Earphone	9.95
FNB-53 Nicad battery pack	19.95
MH-34B4B Speaker/mic	30.95
MH-37A4B Earpiece/mic	30.95
NC-66B Wall charger for FNB-53	18.95

ZEISS (ZEI)

52 20 10 Mini Quick 5x10 monocular	$ 89.95
52 20 28 10x25 pocket binoculars	379.95
52 20 47 10x25 black binoculars	459.95
52 30 09 8x30 black binoculars	399.95
52 40 06 7x42 rubber armored binoculars	949.95
52 40 07 7x45 black forest binoculars	1199.95
52 40 13 10x40 rubber armored binoculars	969.95
52 56 59 8x56 black forest binoculars	1399.95

ZENITH (ZEN)

A-8477 75 ohm high-pass filter D	$ 9.95

zm Xpressions (ZMX)

What is your TNC doing? Book Δ	$ 4.95

CLOSE-OUTS

ADI AR-446 35w 440 FM Xcvr w/TTP mic	$229.95
AEA IDR-96 5w 441.05 data Xcv/9600	249.95
AEA WeFax-256 WX FAX Win prog; 1232/2232	89.95
ALI DJ-C4T* 440 300mw cc size HT/lith ion	69.95
*No internal spkr DJ-C4T - must use earphone	
ALI EBP-32N 12v 722ma nicad; DJ-G1T	69.95
ALI EDC-52 Quick charger; DJ-G1T	79.95
ALI EDC-60 Quick charger; DJ-191TH/G5TH	79.95
ALI EMS-11 Extra TTP microphone	50.95
ALP DX-SD 80/20m 38' short dipole	69.95
AMI 6:1-HB/U300 W2FMI 6:1 off center fed balun	69.95
AMI 12:1-HB600 W2FMI 12:1 rhombic/V-beam balun	139.95
B&K 541 Component comparator	199.95
B&K 830 Autoranging capacitance meter	169.95
B&K 1646 0-16V, 0-10A power supply	249.95
B&K 2831A Digital bench multimeter	169.95
BAY FPR-1B AM/FM/SW 30min Freeplay radio	69.95
BAY FPR-2 AM/FM 60 minute Freeplay radio	49.95
BEN ST-3 Sgl lever kyr paddle, gold plate	149.95
BIR 43P Peak reading directional mtr, SO239s	369.95
BIR 4304A 25-1000 MHz 500w wattmeter	499.95
CHR AH-50 5w 6m FM HT w/nicad battery	119.95
CHR AH-50SF 5w 6m FM HT/batt/select offset	139.95
CHR CBS-1000 SSB/AM Base CB	229.95
CMT CF-413A 440/1.2 500/200w N w/leads	49.95
CMT CF-4130A 440/1.2 500/200w N, no leads	49.95
CMT CF-706 1.3-56/75-320 350w UHF w/leads	69.95
CMT CFX-431B 2m/440/900-1.2 N/UHF/UHF/N, leads	59.95
CMT CFX-4310B 2m/440/900-1.2 N/UHF/N/N, no leads	49.95
CMT CMX-2 1.8-200 200w SWR/pwr/rem head	129.95
CMT HA-4S 40/15/12/10m 4' 5" mobile ant	149.95
CMT QE-07 40m 50" mobile antenna	59.95
COB 25LTD ST Sound Tracker AM Mobile CB	99.95
COB 25WX ST Sound Tracker AM Mobile CB w/WX	99.95

Close-Outs - continued

	AES Price
COB 29LTD ST Sound Tracker AM Mobile CB	109.95
COB 29WX ST Sound Tracker AM Mob CB/WX	109.95
COB CA-72 Amplified CB desk microphone	49.95
COB CP-912 900MHz dig sp spec cordless	69.95
COB FRS-200 Family radio service handheld	59.95
COB HH-36 ST Sound Tracker handheld CB	59.95
COB HH-40 5w 40 ch CB walkie talkie	59.95
COB HH-45WX ST Sound Tracker HH CB/WX	99.95
COB HH-70 AM remote CB	79.95
CSY CS-700 Simplex interconnect	169.95
CUS 20-4CD 20m, 4 el, 32' boom, 10 db	399.95
CUS CG-144A 2m ¾" mt Gold coil/whip only	59.95
CUS R-80 80m kit for R-7000 only	129.95
DAV 7415 Wizard II-S weather station	99.95
DIA NR-790A 2m/440 4.5/7.2db 57" mob ant	79.95
DRA SW-2 Shortwave receiver	499.95
EME EAN-3400 HDTV dig-ready amp om TV ant	49.95
GRU Traveller III Digital AM/FM/SW/LW Rcvr	99.95
HAL P-38 HF DSP modem board	229.95
HUS G7-150-4 7db 167-174 base ant	99.95
HUS G6-450-4 6db 470-478 base ant	89.95
HYG 189S GRK-88 Ground radial kit	49.95
HYG 190S RRK-88 Roof radial kit	59.95
HYG 191S 160MK-88 160m kit for 188S	99.95
HYG 216S 216SAT 2m 16el 145.9MHz boom	139.95
HYG 381S 19PD 80-10 233' 1-band port dip	169.95
HYG 2400-155 62400155 Boom mic/headset	49.95
ICO AD-25 Battery charger adapter; 2GXAT	59.95
ICO BC-35 Drop-in rapid charger	99.95
ICO BP-5 425ma 10.8v high power battery	89.95
ICO BP-5A 425ma 10.8v direct chg batt	89.95
ICO BP-7 425ma 13.5v 5w battery	89.95
ICO BP-8 800ma 8.4v long life battery	99.95
ICO BP-83 7.2v 600ma battery	79.95
ICO BP-84 7.2v 1000ma battery	99.95
ICO BP-131 900ma 7.2v batt/mic; W21AT	49.95
ICO BP-132 600ma 12v batt/mic; W21AT	79.95
ICO BP-171 4.8v 700ma batt; T22A/T7H/W32A	49.95
ICO FL-63A 250 Hz CW filter; R-71A	79.95
ICO HM-14 Scan/TTP microphone	99.95
ICO HM-55A Speaker/mic w/TTP	59.95
ICO HM-56A Autodial TTP mic	129.95
ICO HS-62 Flexible mobile mic	59.95
ICO IC-M45W White 25w VHF marine Xcvr	179.95
ICO IC-706 Mk II Mini Xcvr/SW Rcvr/6m/2m/DSP	998.95
ICO IC-707 Xcvr/SW Rcvr w/mic	649.95
ICO IC-756 Xcvr/Rcvr/6m/IF-DSP/tuner/keyer	1988.95
ICO IC-756/PS-85 HF Xcvr/switch ps combo	*2158.90
***Price w/instant coupon; coupon until gone!**	
ICO IC-821H 2m/430 SB/FM sat Xcv/9600/mic	1399.95
KAC 505-DSP/505-AT PC HF Xcvr/tuner	1999.95
KAC 970056 75' control head cable	69.95
KAN Data Engine TNC w/no modems	149.95
KAN Data Engine w/DE-1200 modem	199.95
KAN GPS Tracker GPS/active ant/KPC3+ pack	499.95
KEN BC-15A Rapid cgr; PB-13/14/17/18	19.95
KEN BT-10 6 AA alk batt case; TH-235A	2.95
KEN DFK-4B 13' rem cable kit; TM-733A	29.95
KEN DFK-7B Dlx 22' rem cbl kit; TM-733A	49.95
KEN DTU-2 Digital paging unit; TM-541A	14.95
KEN MB-13 Quick release mobile mt; TS-50S	19.95
KEN MB-14 Quick release mob mt; TM-742AD	19.95
KEN MC-45DM Extra multi-function TTP mic	79.95
KEN ME-1 Memory expansion; TH-28A	4.95
KEN PB-36 7.2v 950ma nicad; TH-235A	9.95
KEN PB-37 12v 950ma (5w) nicad; TH-235A	9.95
KEN PG-3E Cig cord w/filter for DC-1	19.95
KEN SC-34 Soft case; TH-28A/48A/PB-17/18	4.95
KEN SC-36 Large soft case; TH-78A	.99
KEN SC-41 Soft case; TH-79A(D) w/PB-32	4.95
KEN SC-43 Soft case; TH-79A(D)/PB-33/34	4.95
KEN TH-42AT 2.5w 440 FM HT/batt/cgr/TTP	269.95
KEN UT-10 10w 1.2 GHz module; TS-790A	549.95
KEN YG-455C-1 500 Hz CW filt; TS-450/690	149.95

Close-Outs - continued

	AES Price
KEN YK-88S-1 2.4 KHz SSB filt; TS-450/690	69.95
MAG GPS Tracker 12 ch GPS w/wrist strap	199.95
MAG Meridian XL GPS/plot/detach ant	219.95
MAX 27-KC Docking handheld/AM Mobile CB	49.95
MAX GMRS-21X 1w 2ch GMRS/batt/cgr/AA holder	119.95
MFJ 1292 Video digitizer for IBM	49.95
MGE HFS-1 10w mobile spkr, 3.5mm plug	19.95
MID 74-200 SAME WX/hazard alert radio/ps	59.95
MID 75-510XLB FRS handheld/batts/cgr	79.95
MIR A-1015R 6m FM 2/80w repeater amp	439.95
ORE WR-8800 Port WX/haz radio/alert w/ps	49.95
PAL 150-550 KHz plug-in loop (LF, 1750m)	79.95
PAL .55-1.6 MHz plug-in loop (AM broadcast)	79.95
PAL 1.6-5 MHz plug-in loop (160m, 80m)	79.95
PAL MSB-3 Magnetic switch rcv balun	49.95
RFA Match Alert VSWR monitor/alarm	99.95
RFA P-1500 1.8-30 MHz dig pwr/SWR meter	169.95
RFC 2-23 2m FM/SSB 2/30w amp/preamp	69.95
RFC 2/70 2m/440FM 3/30//5/20w HT amp	129.95
RFC 144 2m FM mini-amp 2/30w amp	49.95
RFC VHF1-60 2m 1/60w FM HT amp	119.95
RFL HL-36U 440 .5-12/30w amplifier	119.95
ROH HDBX-40/BXB-7 40' twr/base stubs, 18 sq ft T	499.95
SGC 70-07 PowerClear add-on DSP unit	349.95
SON ICF-SC1 300 ch pocket scanner	219.95
SON ICF-SC1PC 300ch pocket/PC interface	269.95
SON ICF-SW30 AM/FM/SW portable receiver	89.95
SON ICF-SW1000TS AM/FM/SW Rcvr/tape/ANLP1	499.95
STR ATH-30/HS 2800MHz/1-shot/hi-stability	269.95
STR ATH-50 5Hz-2800M bar/auto trig/hispeed	229.95
STR ATH-50/HS 2800MHz/trig/hi spd/hi stab	299.95
STR CAM-PHA-AES B&W pinhole TV cam/mic/ps	79.95
TRI MT-6+ 6 out console surge suppressor	69.95
TRI PR-12 9A power supply, 12A surge	49.95
TRI PR-20 16A power supply, 20A surge	69.95
TRI PR-30 24A power supply, 30A surge	99.95
TRI PR-40 32A power supply, 40A surge	119.95
TRI PR-50 37A power supply, 50A surge	149.95
TRI PR-60 48A power supply, 60A surge	169.95
UNI BC-147XLT-1 16 ch prog scan/instant WX	89.95
UNI BC-235XLT 300ch prog pock/trunk/xtra bat	179.95
UNI BC-3000XLT 400ch 25M-1.3G pocket	369.95
UNI BC-9000XLT 500 ch 25MHz-1.3GHz	429.95
UNI BCT-10 Pre-prog hiway info sys scan	89.95
UNI BCT-12 Pre-prog mob warning scanner	159.95
UNI PRO-350XL 40 ch handheld CB	79.95
UNI SC-150B 100ch black sport pocket/800	169.95
X10 CK-11A X10 ActiveHome automation/win soft	59.95
YAE CA-8 2 chg sleeves; NC-50/FT-416/530	1.95
YAE CSC-24S Case; 23R/33R/73R w/FNB-12S	.99
YAE CSC-35 Soft case; 411E/811/911/FNB17	.99
YAE CSC-50 Vinyl case; 415/416/FNB25	1.95
YAE CT-20 Mic cable for use with MD-1C8	4.95
YAE DVS-3 Voice unit; 2200/5200/6200/7200	29.95
YAE FEX-736-50 6m module; FT-736R	279.95
YAE FEX-736-220 220MHz module; FT-736R	309.95
YAE FEX-736-1.2 1.2 GHz module; FT-736R	539.95
YAE FNB-40 650ma 6v battery	29.95
YAE FNB-49 600ma 6v battery	9.95
YAE FP-712/Vertex 10A switch ps, 12A surge	89.95
YAE FRC-4 DTMF pager unit; FT-5200/6200	4.95
YAE FRC-6 DTMF pager unit; FT-2500/7400	4.95
YAE FT-23R-12 5w 2m FM HT/FNB-12S/cgr	149.95
YAE FT-41R/HP 3.5w 440 HT/FNB38/cgr/TTP	129.95
YAE FTS-6 Encoder/decoder; 09-series	4.95
YAE FTT-4 DTMF (TTP) unit; FT-23R/33R/73R	9.95
YAE FTT-12 16-key keypad/dec/DVRS; FT-50R	19.95
YAE FX-1 Xcvr-FAX interface/controller	9.95
YAE MH-29A2B LCD disp spkr/mic; 530/51R	89.95
YAE MH-39A6J Extra reg mic; FT-8500	94.95
YAE MW-2 Wireless remote control mic	39.95
YAE TCXO-1 Temp compensated xtal osc	179.95
YAE TV-736 1.2 GHz ATV converter; FT-736R	179.95
YAE XF-C 2.4KHz SSB xtal filt (455KHz)	139.95

OREGON SCIENTIFIC

ALL HAZARDS WEATHER RADIOS

Monitors 24-hr weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock land alarm with snooze

WR-8800 Pocket-sized *(right)* Ambient temperature display • Freeze alert audible and visual warning • LCD screen with backlighting • Water resistant case with compass • Built-in desktop stand with power supply • Uses 3-"AA" batteries, not included • 2½"w x 1"d x 6½"h, 8 oz ..... Closeout **$49.95**

WR-102 Portable S.A.M.E. Weather Radio *(left)* A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. (Specific Area Message Encoding) technology **$49.95**

WR-3300 Desktop or Bedside Operates on 3 "C" batteries (not included) or with included AC power adapter • Large digital clock LCD • Wall mount or desktop • 5"l x 4"w x 2"h, 6 oz..... **$29.95**

WEATHER STATIONS

WMR-918 Cable Free™ Weather Station Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions selected by a press of the touch-sensitive jumbo LCD display screen **$329.95**

WM-918 Complete Weather Monitoring Station Monitors over 20 weather and environmental conditions. Sensor range up to 300'. Comes with with all wiring and accessories: Self-dumping electronic rain gauge; outdoor temperature and humidity sensor and anemometer for wind speed and direction. Desktop control panel displays clock, calendar, alarm, and weather readings. Also features weather forecasting system with prediction icons displaying local 12 and 24 hour forecasts. PC connections with optional kit. Uses 8 AAA batteries, AC adapter included. 7"l x 4¼"w x 1½"h, 14.8 oz..... **$199.95**

SW-918 PC software and cable; WM-918 **$29.95**

WEATHER CLOCKS

RM-116E Exactset™ Radio Controlled Clock *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic Clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time..... **$39.95**

BA-812E Weather Clock *(right)* Unique bedside or desktop alarm clock features automatic weather forecasting technology with easy-to-understand graphical weather icons. Displays the indoor room temperature and features a HiGlo™ backlit LCD... **$49.95**

SECURITY ITEMS

PE-319 Pedometer with Personal Security Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display.. **$29.95**

we have a **SECURE** web site at **www.aesham.com**

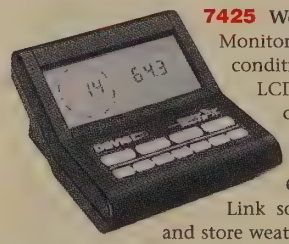
davis

WEATHER STATIONS

Gives many measurements and the ability to download and graph data on your PC.

7440 Weather Monitor II® This weather station combines all weather monitoring function and 12 or 24 hour clock with date into one package. Shows them on an back lit, 1⅞" x 4⅜" LCD display. **Temperature:** Outside, –50 to 140°F; Indoor, 32° to 140°F **Wind:** Direction in 1° or 10° increments • Speed to 175mph • High wind speed & wind chill to –134°F **Barometer:** Barometric pressure with memory recall and trend arrow **Humidity:** Inside 10%-90% (outside optional) • High and low **Alarms:** Temperature, wind speed, wind chill, humidity, time and barometric trend **Features:** Scans selected functions • 115VAC • Battery back-up • Desk, shelf or wall • Size: 5¼" x 5⅞" x 3"..... **$349.95**

7859 External Temperature & Humidity Sensor For the 7440; measure outside humidity, dew point and temperature. Comes with 40' cable .. **$109.95**



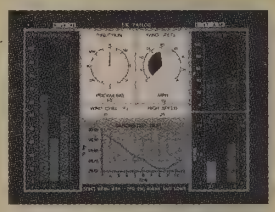
7425 Weather Wizard III® Monitor indoor and outdoor conditions on a 1⅞" x 4⅜" LCD display. Measure daily & accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store weather data through an IBM® compatible or Mac®. Includes anemometer, external temp. sensor, junction box, cables and AC adapter. **Temp:** Indoor, 32°F to 140°F • Outdoor, –50° to 140°F • High and low **Wind:** Direction in 1° or 10° increments • Speeds to 175mph • Wind chill to –134°F **Alarms:** Temperature, wind speed/chill, time **Other:** Scans selected functions • Metric or U.S • 115V AC • Battery back-up • Desk, shelf or wall • 5¼" x 5⅞" x 3" **$169.95**

7852 Rain Collector II For 7440, 7425 & 7415; read both daily and accumulated rainfall in 0.01" increments. Comes with 40 ft. cable..... **$69.95**

7400 Perception II® Monitors indoor climate, looks similar to 7425. **Functions:** Temperature 32°F–140°F • Barometric pressure w/memory recall • Humidity • Highs & lows recorded with time & date • **Alarms:** Temp., humidity, time, barometric change • 12/24 hour clock with date • Backlit display..... **$129.95**

0281 Wind Wizard™ Wind Speed Indicator Handheld unit accurately measures wind speed from 0-60 MPH. No batteries required **$46.95**

SOFTWARE



7862/7866 WEATHERLINK® Windows® or Mac platform. Links Perception, Weather Wizard, or Weather Monitor to a computer. Cre-ate graphs, calculate average conditions, generate summaries, analyze trends, etc... **$139.95**

40 FT. EXTENSION CABLES

7876 4-conductor, for anemometer, ext. temp. sensor, rain collector, or WeatherLink **$18.95**

7878 6-conductor. For use with the external temperature and humidity sensors **$22.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

maxon SYSTEMS

WX-70 Weather Monitor Receive up-to-the-minute National Weather Service (N.O.A.A) broadcasts of local weather conditions for the United States, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. Tunes all 7 N.O.A.A frequencies: 162.550, 162.400, 162.425, 162.475, 162.450, 162.500, and 162.525 MHz. Three severe weather "Alert" warning modes: "VOICE", 10 Second SIREN, or Flashing LED. Supplied 110V AC adapter, uses a 9V battery for back-up power in the event of an electrical outage. 5¾"w x 4¾"d x 1½"h, 13 oz.... **$39.95**

74-109 WEATHER MAX PLUS Weather/All Hazard VHF Radio Up-to-the-minute weather and "hazardous conditions" information. Equipped with all N.O.A.A. channels in the 162MHz range for maximum reception of local weather and hazardous conditions reports (fire, earthquakes, radiation, etc.) In the event of severe weather or hazardous situation, a warning signal is broadcast and the radio's "alert" is automatically activated, sounding a 90-decibel siren, voice warning or flashing an LED alert. There is also an accessory jack for keying add-on alert devices such as strobe lights, buzzers, etc. Plugs into a standard 120 VAC outlet. Built-in jack permits powering from any 12 VDC vehicle. With a 9V battery backup system, it operates during power outages or outdoors. 1⅜"h x 6¼"w x 4¾"d... **$39.95**

74-210 Digital Weather/Hazard Alert Monitor with S.A.M.E., FM Radio and Clock Provides the latest storm or hazard safety information only in areas you specify, county-by-county. Digital tuning provides pin-point accuracy for 7 NOAA frequencies, covering all US/Canada weather channels for up to 50 miles. The digital FM radio with five memory channels automatically switches to alerts when they occur. The digital readout also displays up to 56 types of watches and warnings as well as the radio frequency and time of day. Operates from 117VAC and 9-14V DC with 4 "AA" batteries for back-up. Accessory jack makes it easy to add an antenna, strobe light, pillow vibrator or any X-10 accessories. 7"W X 5"d x 2"d **$89.95**

SELF-POWERED PRODUCTS

No batteries or external power needed. Perfect for activities, emergencies, power outages. Inside, the *Freeplay Generator,* a wind-up B-motor carbon steel spring, drives a generator thru a transmission to produce operating voltage. A short wind-up yields up to an hour of listening, depending on model & volume. Built-in antenna, external power & headphone jacks.

FPR-2 (right) AM & FM broadcast band coverage. Wind-up provides 60 minutes of operation. 8"h x 11½"w x 8"d, 5 lbs, 5 oz ..... Closeout **$49.95**

FPR-1B (left) AM & FM broadcast plus 5.8 –18MHz. Wind-up gives 30 minutes of operation. 10"h x 13½ "w x 5½ "d, 6 lbs, 3 oz ..... Closeout **$69.95**

AC APAPTER for BayGen FPR-2 only **$10.99**

HEADPHONES for BayGen FPR-2 only... **$14.99**

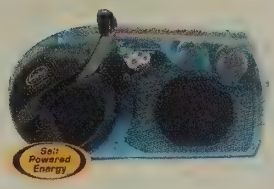
SWL ANTENNA Indoor SW antenna..... **$19.95**

FPR-2SC (clear) **FPR-2SM** (grey) Same as FPR-2 above, with the addition of a solar panel that powers the radio when exposed to sunlight. It powers off of a solar panel alone in direct sunlight, but as light decreases, the radio automatically draws from the spring generating mechanism. The clear plastic model shows off the works **$79.95**

X-10 is the leader in wireless home security and home automation to protect your family and your electronic equipment! Home security will monitor doors and motion sensors can cover wide areas in or around your house. You can even have the system call a friend or neighbor if it's activated. You can ward off potential problems with the sound of REX, a fierce sounding electronic barking dog.

Home automation is here now and X-10 provides it! Hot coffee automatically in the morning, turn lights on/off automatically or at the push of one button. Turn the heat up and down. Set it up to run from your PC and more ..... **PRICED NEAR COST!**

See Price Guide for full line.



S360-BL (clear blue), **S360-C** (clear) **Freeplay® 360** Covers AM and FM broadcast bands. Sixty turns provide full energy storage. Can be wound without interrupting radio reception. The solar panel will power it all day in direct sunlight. With its internal power storage system, it automatically saves all available spring and solar energy giving 15 hours of playtime when fully charged. Can also be charged with AC/DC wall adapter. Clear or clear case..... **$69.95**

FPR-2SGSW Global Shortwave Covers AM and FM broadcast band and 5-18MHz. Plays up to an hour under spring power alone. With its solar panel, the radio saves spring power by switching automatically to make use of all available light. It plays all day in direct sunlight and it can also be powered by an optional AC/DC adapter **$99.95**

FP-SL (yellow), **FP-SL-CBL** (clear blue) **Freeplay® Lantern** Working off its own internal generator or rechargeable battery. Each 30 sec. wind provides a minimum 3 minutes light in "on" position or charges its battery in "charge" position. Includes a 1Hz flasher unit. Battery mode gives 2 hours of light. An auxiliary power socket provides 3V DC @ 350mA. Bright, high pressure Xenon bulb. Weather resistant, made of nylon and reinforced materials. 7" x 10" x 5½", 4lb. 7oz... **$69.95**

BLUB Extra xenon bulbs (2 -pack)..... **$9.99**

FPS-10 Patch cord for 3V aux. output **$6.99**

SONY®

ICF-B200 Emergency AM/FM Radio Turning generator handle (charging) for one minute. provides 30 minutes listening time. Also operates with 2 "AA" batteries. Includes Emergency guide light and Audio beacon. Orange color stands out amidst foliage and makes location easy. Water-resistant. Headphone jack. 3½"x 6⅝"x 2½, 11½ oz..... **$79.95**

Used & Demo
Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

uniden

CB RADIOS

GRANT-LT AM/SSB Mobile CB Radio Dynamic Squelch Control (DSC) for improved clarity • Full PLL synthesized 40 channel operation • Single sideband,12W PEP (AM, 4W) • LED Channel indicator • Backlit control knobs • Microphone gain, RF gain and clarifier controls • NB/ANL switch • PA/CB switch, dimmer control • Multifunction meter - indicates relative RF output, modulation, SWR and receive signal strength • TX/RX indicator, tone HI/LO switch • 7⅞"w x 9½"d x 2⅜"h, 5 lbs **$169.95**

PC-78XL AM Mobile CB Radio Full PLL synthesized 40 channels • DSC - Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7 9/32"w x 8⅝"d x 2 23/64"h, 4 lbs. 3 oz..... **$109.95**

PC-78LTW Same basic features as the PC78XL with the addition of NOAA Weather Channel reception with Weather Alert..... **$129.95**

PRO-520XL Compact 40 Channel AM Mobile CB Radio 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • Only 4½"w x 6¾ "d x 1⅜" d, 1 lbs. 10 oz..... **$59.95**

900MHz CORDLESS PHONES

EXP-7902 Cordless Phone with Voice Scramble 40 channel auto-scan • Voice scramble security • Ultra-Clear plus noise reduction • 10 mem. • 3 one-touch priority keys • 7 hrs talk time • Long-life battery • 32 digital redial • Page/fine feature • Desk/wall mount **$39.95**

EXA-7950 Cordless Telephone w/Digital Answering System Integrated digital answerer • 40 channel autoscan • Time and day stamp • Remote message retrieval • 15 minute record time • Base speakerphone • 10 number memory dialing • 3 one-touch priority keys • 14-day stand-by • Desk or wall mount..... **$79.95**

EXS-9110 Digital Spread Spectrum Cord-less Phone Best privacy • 20 number memory • 4 one-touch memory keys • Battery back-up/recharge • 20 channel autoscan • Headset compatible • 10 day long-life battery • Page and fine feature • AutoTalk™ and AutoStandby™..... Closeout **$69.95**

EXS-9960 Digital Spread Spectrum Cordless Phone Ultimate in cordless phone Privacy! Caller I.D. and call waiting I.D **$109.95**

EHD-1200GB Harley Davidson® 900 MHz Cordless Exclusive telephone crafted by Uniden to replicate the Harley gas tank. 900MHz extended range • 40 channel autoscan • 10 number memory dialing • Three one-touch speed dial keys..... **$74.95**

RECOMMENDED ANTENNAS FOR CB

COBRA

AT-70 Magnet mount 38½" base loaded mobile antenna with 17 ft. coax and connector. **$24.95**

HUSTLER

HQT 55" top loaded whip with Mirror Mount bracket. Comes with 12 ft. cable with PL-259 connector. Chrome with a white coil..... **$27.95**

HQ-27M 55" top loaded whip with Trunk-lip Mount. Comes with 15 ft. cable and PL-259 connector. Chrome with a white coil **$36.95**

LARSEN

NMO-27C Base loaded 1/4 wave mobile **$33.95**

NMO-TLP Low profile trunk mount for NMO-27. Comes with 17 ft. coax and PL-259 ..... **$29.95**

NMO-MM Magnet mount for NMO-27. Comes with 12 ft. coax and PL-259 connector..... **$31.95**

SOLARCON

A-99 Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain..... **$64.95**

GPK-1 Ground plane kit for A-99. Adds 30% more power gain and lower angle of radiation **$39.95**

WILSON

W-1000 5 ft. base loaded mobile antenna. Available in three mount configurations. All come with 18 ft. cable and PL-259 connector.

ROOF thru-hole mount..... **$54.95**
TRUNK mount **$62.95**
MAGNET mount..... **$72.95**

Cobra® SOUND-TRACKER® SYSTEM

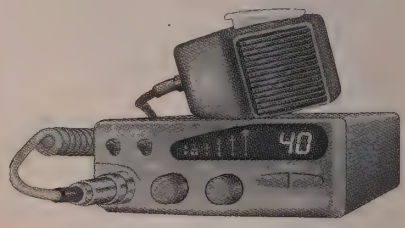
CB RADIOS

Technology that dramatically improves the transmission and reception of radio signals. "Cuts Noise Coming In... Strengthens Signals Going Out!" The result is a cleaner, clearer sounding radio with more "powerful" transmissions and less static or noise on reception.

29LTD ST AM Mobile CB Radio SoundTracker™ System • Maxi RF output power • Combination S/RF meter • Built-in SWR indicator • Switchable auto noise limiter and noise blanker • Instant channel 9 and 19 • Delta tune clarifier • CB/PA switch • Dimmer switch • RX/TX indicators • 4 9/16" x 1¾" x 6⅞", 2½ lbs ..... Closeout **$109.95**

29WX ST AM Mobile CB with Weather Band Same looks and basic features as the 29LTD ST with the addition of a CB/WX switch to select between CB and weatherband allowing reception of 7 NOAA VHF weather channels. If threatening weather is nearby, the National Weather Service may broadcast a 10 sec. alert tone which will be heard through the CB, even if the CB/WX switch is in CB mode. (dual band ant. recommended for best WX reception)..... Closeout **$109.95**

148NW ST Full Featured AM/SSB Mobile CB Radio 12W PEP SSB RF output - increases range capabilities with SSB oper. • 4W AM RF power (FCC max. allowed) • 120 channels - full 40 and 80 of SSB oper. • Dual conversion AM receiver - designed to maximize freq. response & image/spurious rejection • Additional Features: SoundTracker™ system, NightWatch™ dimmer control, USB/LSB/AM oper., Digital channel indicator, RX/TX indicators, Switchable noise limiter & blanker, RF-gain control, Hi/Low tone switch, PA capability, SWR indicator, Instant channel 9 • 7¼" x 2¼" x 8⅝", 6 lbs..... **$179.95**



19DX II Compact AM Mobile CB Radio Sculpted features & muted graphics giving it a dynamic look complementing any vehicle of today • Electronic tuning/40 channels • Digital channel display • 4W RF output power – (max. FCC allowed) • Instant channel 9 – access to National Emergency Channel • Combination S/RF meter • CB/PA switch – selects CB oper. or PA operation for communicating outside the vehicle • 4 9/16" x 1¾" x 6⅞", 2½ lbs..... **$49.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

FRS FAMILY RADIO SERVICE

For non-commercial use, FRS shares GMRS frequencies but you do not need a license to operate. Uses include: camping, trips to the beach, hiking, jogging, parks, amusement spots, skiing, mobile caravans, any place where two or more people need to stay in touch. Power – 100mw to 0.5W ratings of handheld portables allow range of up to 2 miles, line of sight. **FRS Channels:** 462.5625, 462.5875, 462.6125, 462.6375, 462.6625, 462.6875, 462.7125, 467.5625, 467.5875, 467.6125, 467.6375, 467.6625, 467.6875, 467.7125MHz

MIDLAND

75-510XLB 500mw • 14 channels, 38-tone coded squelch • High-speed scan • PTT/VOX • 3 "AA" rechargable NiCad batt. and wall charger included • 4¾"h x 2"w x 1¼"d Closeout **$79.95**

KENWOOD

UBZ-AL14BK *(left)* 500mW output • 14 FRS channels • Battery saver function • Lamp function • Call tone transmit function • Audible low battery warning beep/ blinking • Up to 30 hrs operation with 4 AAA alkaline cells • 3.75"h x 2.31"w x 1.19"d..... **$49.95**

UBZ-LH14BK FreeTalk™ *(right)* 500mW • 14 FRS channels • 38 talk groups (CTCSS) • Privacy talk voice • 4 call ring tones CORDS (In-Range Detect System) • Battery saver and auto power off • Low battery alert indicator/beep • Up to 40 hours operation with 3 AA alkaline cells • Only available in black • 3.5"h x 2.25"w x 1"d..... **$99.95**

ICOM

IC-4008A 500mW • 14 channels; 38 Group channels • "Call-Ring" and "Smart Ring" functions provide telephone-style ring with 10 different tones • Auto transponder function automatically checks station availability and alerts via function display indication • Fold-down antenna • Water resistant • Requires 3 "AA" alkaline batteries – 30+ hrs • 4½"h x 2¼"w x 1"d.. **$79.95**

vertex YAESU

VXF-10 Adventurer 500mW output • 14 channels • Digital coded squelch • Automatic range transponder system (ARTS) – ensures staying in communication range • Receives nine NOAA VHF weather channels • Uses 3 "AA" alkaline or Ni-cad batteries (30 hrs) • 4⅛"h x 2⅛"w x 1"d .. Special **$69.95**

We accept I.M.P.A.C.® Government Credit Cards

MOTOROLA

FRS RADIOS

Common Features:
38 interference eliminator codes • Built-in hands free operation (VOX) – when used with optional audio accessory • Time-out timer • Transmit light • Audible low battery alert • Operators manual • 3¾"h x 2¼"w x 1⅜"d x 6½"h with antenna • 1 year warranty

TalkAbout 250
Additional Features:
Scan • "Talking" channel confirmation • Battery meter • LCD display • Audio accessory connector • Removeable belt clip

53543 (Camo) **$89.95**
53590 (Blue) **$79.95**
53592 (Black) **$79.95**

TA-280SLK (NiMH battery)
Additional Features:
Programmable scan • Multiple audible call alerts • Multiple VOX sensitivity levels • Electroluminescent display • Lock/light button • Auto-power off • Battery meter indicator • Single pin audio accessory connector • Removeable carry holster • Alkaline battery tray • 6.05oz with three AA batteries
53716 (Black) **$119.95**

53770 FR50 Operates on three AA batteries •14 channels • Carrier squelch • Audible call alert • Side push-to talk (PTT) • Backlit LCD display • Audible low battery alert • Removable belt clip • Single pin audio accessory connector • Time-out timer • Owners manual • One year warranty • 4.33"h x 2.36"w x 1.30"d, 6.6 oz..... **$49.95**

GMRS GENERAL MOBILE RADIO SERVICE

A personal radio service available to an individual with the proper FCC license. It is a two-way voice communication service to facilitate the activities of the individual's immediate family members. You can discuss your own commercial and/or family business activity. Higher powered two to five watt hand-held portables allow communications over 1 to 5 miles. **Interstitial Frequencies:** 462.5625, 462.5875, 462.6125 462.6375, 462.6625, 462.6875 462.7125 MHz **Primary Frequencies:** 462.5750, 462.6250 MHz **"Emergency" Frequency:** 462.6750MHz

GMRS RADIOS

MOTOROLA

Common Features:
38 Interference eliminator codes • Built-in VOX operation (when used with optional audio accessory) • Scan capability • Voice-assisted programming • Low battery alert • Transmit light • Audio accessory connector • Removeable spring action 2.5" belt clip • Rechargeable battery • 10 hour charging adapter

TalkAbout DX
• 2W • 5¼"h x 2½"w x 1¼"d, 11.1 oz
53544 (Grey) **$189.95**

TalkAbout DXDPS
Additional Features:
• Alkaline battery tray (6 AA batts. not included)
• 2W • 6¼"h x 2½"w x 1¼"d, 11.7 oz.
53547 (Grey) **$199.95**

maxon

GMRS RADIO

GMRS-21X GMRS Radio 1 Watt RF output • 2 channels:–462.575 and 462.625MHz • Includes rubber duck antenna, srechargable NiCad battery pack, AC/DC wall charger, belt clip and four AA alkaline battery holder • 5½"h x 2 1/16"w x 1¾"d ..... Closeout **$119.95**

49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear voice transmission • Compatible use for group communications • Push-to-talk or voice activated (VOX) - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz

MX-49SX A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2½"h x 1"d, 9 oz..... **$29.95**

MX-49FX The unique earphone and microphone pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button & channel selector. Uses three "AA" batteries. 5½ "w x 3"h x 1"d 6 oz **$49.95**

MX-49HX Great for motorcycling, snow mobiling, etc. The helmet adaptable headset has a whip antenna and boom microphone with windscreen • 5 selectable channels • VOX or PTT with on-unit or remote switch • Front mounted off/on, volume, VOX sensitivity and channel selector • Jacks for optional passenger intercom headset • Uses three "AA" batteries • 5½"w x 3"h x 1"d, 6½oz ... **$49.95**

PC-50 Handheld Communicator Operate with or without detachable headset • Boom mic, windscreen and whip antenna included • 5 selectable channels • Call-tone alerts person that you want to contact • Compatible with all Maxon 49MHz radios • Uses 3 "AA" batteries • 6"h x 2½"h x 1½"d, 8.2 oz **$49.95**

GARMIN

GPS-12XL **Personal Navigator™ for the Extreme Outdoor Enthusiast** Has a 12 channel receiver with external antenna for fast, accurate position fixes in the toughest conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters and hikers. 500 user waypoints with alphanumeric name and user comments, and 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns your track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA" batteries **$219.95**

GPS-12CX **Color Display Personal Navigator™ for the Outdoor Enthusiast** Nine built-in languages including French, German, Portuguese and Spanish. 2,048 track log points. Selectable position formats including MGRS and user-define grid. Provides heading, track, sunrise and sunset, ETE, ETA and other calculations. User selectable audible settings, TracBack™. Up to 36 hours of battery life... **$269.95**

NavTalk™ **Personal Navigator™ and Cellular Mobile** Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send your exact position and have it displayed on another NavTalk unit. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager; • One-touch emergency dial (subscription to roadside assistance required) **GPS:** Shows interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs [U.S. Roads and Recreation (010-10215-00) or World Map (010-10215-05.0.1 **Special Order**)]..... **$399.95**

GPS-III Plus **Personal Navigator™** Dash mount. Features road maps without plug-in cartridges. Selectable vertical or horizontal screen display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop trip timer, average/maximum speed recordings. Rocker keypad, backlit LCD display, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Takes download data from MapSource CDs **$369.95**

StreetPilot **Dashboard Mount** Built-in map of the Americas with state and country boundaries, lakes, rivers, cities, U.S. state and interstate highways and some local thoroughfares. Accepts GARMIN cartridges showing residential streets, addresses and points of interest. Features: Large high resolution 240 x 160 pixel display; Three-level bright amber backlit screen and keypad; Automatic turn by turn guidance with manual route selections; Automatic waypoint and route naming; Storage for 100 waypoints; Trip planning and computer. Zoom key – 120 ft. to 800-mile range; Dashboard screen showing current trip segment, distance, direction; Clock and arrival alarms. Up to 16 hours on 6 AA batteries .. **$469.95**

eMAP DELUXE **Electronic Map** Contains 12-parallel-channel GPS receiver and internal patch antenna in a compact design with built-in basemap showing cities, interstates, exit info and more. A large, high resolution, backlit screen provides a clear picture. Dedicated zoom keys with unique rockerpad design for easy one-hand operation. • Find cities, nearest exits and waypoints • Built-in trip computer provides odometer, stopped/moving/total time, moving/overall average and maximum speed • Map page displays direction pointer, speed, time, distance/time to go and trip distance • Save up to 500 important sites • 2000 track log points • Up to 12 hours operation on 2 "AA" batteries. Package includes interface cable, blank 8MB data card, wrist strap and guide • 2.4" x 5.5" x 0.8", 6.7 oz. **$299.99**

eTREX **GPS** Contains 12-parallel-channel GPS receiver and internal patch antenna packaged in a new sleek, waterproof case. Operating buttons on both sides allow more room for display. An extremely capable GPS with the power of larger, higher-priced units. Simple menus and logical operations make it easy to mark your position under any conditions. Navigation is made simple using the compass or map pages. • Dedicated zoom keys for map page • 500 User waypoints with name and graphic symbol • 1 route with 50 waypoints • Resettable trip computer • Automatic track log, 10 saved tracks to retrace your path • Permanent user data storage, no memory battery required • Up to 22 hours of use with 2 AA, alkaline batteries • Water resistant • 4.4"h x 2"w x 1.2"d, 5.3 oz..... **$145.95**

DELORME®

Earthmate™ **GPS Receiver for Laptop PC** A GPS receiver from DeLorme featuring a slim design, the latest GPS chip technology from Rockwell, enhanced performance, and award-winning Street Atlas USA 6.0 software*. Connect to laptops and Windows® CE or 3Com® Palm Computing handhelds. Use the new Solus™ PRO handheld mapping and routing application available separately from DeLorme..... **$159.95**

Street Atlas USA® 6.0 is America's most detailed street-level mapping software including address-to-address routing, enhanced GPS features including GPS voice navigation, expanded exit service information, and compatibility with Window®, CE and 3Com® Computing handheld computers. Lightning-fast search by address, place name, area code and exchange, zip code or lat/long. Create a sharp, detailed Travel Plan with your stops, driving time, and more. Connect to online weather, construction, and other useful travel information.

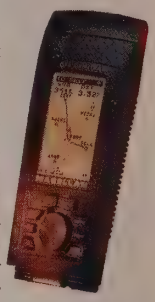
MAGELLAN
Navigation & Communications

Global Positioning Satellite (GPS) brings satellite navigation within reach of everyone! For navigation, hunting, traveling, etc. It tells you where you are and how to get back.
Each Magellan GPS includes a powerful 12 parallel channel receiver, wraparound rubber armoring, "EZstart" operation, auto averaging and a waterproof design.

GPS-300 **Satellite Navigator** A pocket-sized GPS featuring waterproof construction, impact-resistant rubber armor and a quad antenna. EZstart, go-to and other features show where you are, take you places and bring you back again. It holds 100 landmarks and a 10 leg route. It provides three screens displaying distance, bearing, heading, steering, speed and time. Also included: latitude/longitude, map datums and 951mph maximum speed operation. The 9oz. unit runs on 2 "AA" batteries for 24 hours and comes with lanyard..... **$99.95**

GPS-315 Navigates to 20,000 major international cities or brings you back to 500 user-entered locations. Nine screens show bearing, heading, distance and speed. A 12 parallel-channel receiver offers performance under tough conditions. Auto-averaging gives your position while standing. Also: 1200-point Track, BackTrack, best fish/game time, 10-year back-up battery, PC up/download and simulator. The 6.4 oz. unit comes in a waterproof, shock-resistant case. It runs on 2 AA batteries for 15 hrs. Works with mapping software..... **$149.95**

GPS-320 **GPS Navigator with Nautical Navaid Data Base and Worldwide Cities** A fisherman's full-featured personal navigator with a large database of cities and regional marine aids and memory to store up to 500 waypoints and/or landmarks. Four navigation screens show direction, path traveled, and distance. Other features include: A 12 parallel-channel receiver, EZstart operation, 1200-point SmartTrack, BackTrack, best fish and game time, sunrise/set info and mapping software compatibility. Comes with a 10-year back-up battery and operates on 2 "AA" batteries .. **$199.95**



GPS ColorTRAK **Satellite Navigator** Featuring the world's first *high-resolution, color display* in a portable GPS receiver – 128 x 64 pixels. Outstanding lock-on tracking with eight graphic navigation screens including a real-time multiple route plotter with adjustable scale. Stores up to 500 user-entered locations and 20 reversible routes with 30 legs. The detachable super sensitive antenna provides superior tracking ability. Backlit display and keypad. Operates 30 hours on 4 "AA" batteries. 10-year memory back up battery. Comes with carrying case, wrist strap, battery and User/Quick reference guides .. **$279.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

uniden

HANDHELD SCANNERS

BC-60XLT-1 Handheld Scanner *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2⅝"w x 6¾"h x 1½"d, 10½ oz..... **$99.95**

BC-80XLT Handheld Scanner *(left)* 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2⅝"w x 6¾"h x 1½"d,10½ oz..... **$149.95**

BC-120XLT Handheld Scanner *(middle left)* 100 programmable channels with Aircraft coverage, 11 bands, 10 scanning banks • LCD display • Turbo Scan™ and search • One-touch WX • 10 priority channels • Data skip • Memory backup • Rechargable nicad battery and charger • 2½"w x 1¾"d x 6"h, 10½ oz ..... Closeout **$149.95**

BC-3000XLT Handheld Scanner *(middle right)* 400 channels - 12 bands, 20 scanning banks • 10 priority channels • VFO control – continuous band coverage (25-1300MHz, cell blocked) • TurboScan™ and search • One-touch weather • Auto-store • Channel lockout • Includes rechargeable NiCad and charger • 2½"w x 1¾"d x 6"h, 12½ oz..... Closeout **$369.95**

BC-245XLT TrunkTracker II Handheld Scanner *(right)* 300 programmable channels, 12 bands including Aircraft and 800MHz – covers: 29 to 956 MHz (cellular blocked) • Trunk tracking technology: trunk scan and search, truck lock out, trunk delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2½"w x 6"h x 1¾"d, 12½ oz..... **$229.95**

SC-180B Sportcat Hear car and pit crew action at auto races, or the cockpit at air shows, or use the Sportcat like a traditional scanner to keep up with police, fire, emergency and rescue. • 100 programmable channels, 12 bands/800MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, backlit alphanumeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2½"w x 1⅝"d x 6"h, 11 oz..... **$189.95**

BEARCAT SCANNERS

CLT Scanners The first scanners with a built-in AM/FM radio and alarm clock.

BC-244CLT Clock/Alarm • 30 programmable channels, 10 bands • Full frequency LCD display • Channel lockout • Memory back-up • Manual channel access • One-touch weather **$99.95**

BC-248CLT AM/FM Radio with 20 presets • Clock/alarm with snooze • 50 programmable channels, 10 bands , 5 banks of 10 channels each • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels..... **$109.95**

BC-278CLT AM/FM Radio with 20 presets • Clock/alarm with snooze • 100 channels, 12 bands, 5 banks of 20 channels each • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Programmable search • Programmable service search • 5 priority channels . **$189.95**

BC-895XLT "Trunk-Tracker" • 300 channels, 12 bands including Aircraft and 800 MHz, 10 banks • VFO control – covers 29-956MHz (cellular blocked) • 10 priority channels • TurboScan™ • One-touch weather with Weather Alert • Manual channel access • Built-in CTCSS • Trunk search • Scan lockout and delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10⅞"w x 3⅝"h x 7½"d, 3½ lbs..... **$219.95**

BCT-7 Bear Tracker 800 *(left)* Pre-programmed with all frequencies for highway patrol, D.O.T, local and county police, news, fire, aircraft and CB services. Selectable by state (except HI) • 12 bands • 100 user programmable channels • Highway Patrol Priority Alert • Data Skip • Weather Scan • 13.8V DC or AC operation • Mobile mount • 5"w x 7"d x 1⅝"h, 1 lb, 11 oz **$179.95**

BCT-12 BearTracker Highway Information System *(right)* Covers low, high, UHF and 800MHz (cell blocked) highway patrol, police, sheriff, weather, news and transportation frequencies for 50 states and Canada • Weather emergency tone alert • Priority • Channel lockout • Digital signal meter level meter..... Closeout **$159.95**

BC-350A 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels per second • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC power cords • 5¼" x 6¹³⁄₁₆" x1⅝", 1 lb. 11 oz **$119.95**

BC-9000XLT 500 channel continuous band scanner • VFO control – covers 25 to 1300MHz (cellular blocked), 20 banks • 10 priority channels • AM-FM, wide and narrow FM modes • TurboScan™/search • Iluminated LCD dot matrix alpha display • Data skip • Transfer • Auto store; auxiliary line output for recording • 110V AC adapter • Optional CTCSS •10½"w x 7½"d x 3½"h, 4 lbs ..... Closeout **$429.95**

ICOM

R-10-05 General Coverage Pocket Scanning Receiver 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alpha-numeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) and more! Easy-to-read, edge-lit display • 24-hour clock with timer • Adjustable LCD contrast • Signal indicator • Power-saver function. Uses Ni-Cd, alkaline or other DC source. Ni-Cads and wall charger. 2.3"w x 5.1"h x 1.2"d w/Instant Coupon, expires 6/30/00 **$299.95**

R-2-06 Communications Receiver The world in your palm – 2⁹⁄₃₂"h x 3⅜"w x 1¹⁄₁₆"d. Wide frequency coverage from 0.495-1309.995MHz in 9 frequency bands with 400 memory channels in 8 banks of 50 channels (cell blocked). FM, WFM and AM modes. **Features:** Quick and easy band switching • Tone squelch (CTCSS decode) • Offset monitor capability • Built-in attenuator • Optional PC programming capability • Receiver-to-receiver data cloning option • Multiple scan functions • Backlit LCD w/timer • Priority watch function with beep alert • Channel indication • Automatic squelch • Up/down keys for AF level control • Low-battery indicator and beep • Auto-power-off function • MIL-SPEC 810 C/D/E; weather resistant • Includes Ni-Cad charger, two Ni-Cad cells, antenna, handstrap and belt clip . Special **$199.95**

3 million frequencies only he can hear.

Only Sony can turn your PC into a watchdog of the airwaves with the Sony Radio Frequency Scanner and CD-ROM frequency database.

Use the Sony Radio Frequency Scanner with PC Interface and be forewarned about approaching weather systems, traffic conditions and emergency situations. You can even get inside information at some of your favorite sporting events. The Sony CD-ROM gives you easy access to listings of 3 million U.S. frequencies. It makes scanning fast—and easy.

A unique bi-directional PC interface lets you use your PC to control all the Sony Radio Frequency Scanner's standard functions, as well as its special features, including:

- 20 programmable Scanning Ranges.
- Virtually unlimited Memory and Skip Preference Files.
- Data Import and Export between Scanner and PC.
- A searchable CD-ROM database of over 3 million U.S. frequencies.

Performance you can rely on

The Sony Radio Frequency Scanner with PC Interface is a powerful hand-held scanner with the latest scanning circuitry for top performance. It features the full range of functions and features scanner enthusiasts want:

- 25MHz to 1,300MHz Frequency Scanning
- 300-Channel Memory for personal customization.
- Public Service Scan of 9 pre-programmed bands, including police, air, fire/emergency, weather, marine, FM, and TV.
- Intelligent Active Memory that saves the 10 most recently received frequencies for convenient recall.
- AM and Narrow and Wide FM Reception
- Back-lit Display
- Compatible with Windows® 95

Includes ICF-SC1PC Scanner, CD-ROM and interface cable.

The Sony Radio Scanner with PC Interface. . . watchdog of the airwaves.

www.sony.com/radioscanner

©2000 Sony Electronics Inc. Reproduction in whole or in part without written permission is prohibited. All rights reserved. Sony is a trademark of Sony. Windows is a trademark of Microsoft Corp.

SONY

World Band Receiver Radios

TOOLS
FOR
GLOBAL
EXPLORATION

SONY

Chart the four corners of the world...

ICF-SW1000T

With the ICF-SW1000T, you can tune [illegible] record—news or other programs from [illegible] The built-in stereo cassette recorder lets you [illegible] directly from the radio and offers a convenient [illegible] Record Function. Ten-key Direct Access™ tuning [illegible] tuning in your favorite distant stations, while synchronous detection circuitry ensures the clearest possible reception.

- LW/MW/SW/FM Stereo Reception over a wide range of frequencies.
- SSB (Single Side Band) and synchronous detection for reception of SSB broadcasts. Can also help reception of weak signals.
- PLL Quartz Digital Synthesized Tuning for accurate and drift-free tuning.
- 3-Page Random Memory preset tuning to save your favorite stations. Total of 32 random memory presets.
- 1 KHz Step Tuning to lock in on precise station reception.
- Stereo Cassette Recorder (play/record) with auto reverse and tape select to record directly from the radio or play your own cassettes.
- Timer Record Function to record directly from the radio at a preset time.
- Built-in Clock with alarm, dual standby and sleep timer function.
- Dimensions (WHD): 7" x 4 1/8" x 1 5/8".

Get to know the world as you never have before with Sony World Band Receiver™ radios. High-performance Sony World Band Receiver radios and accessories boast the advanced technology that makes your global exploration possible.

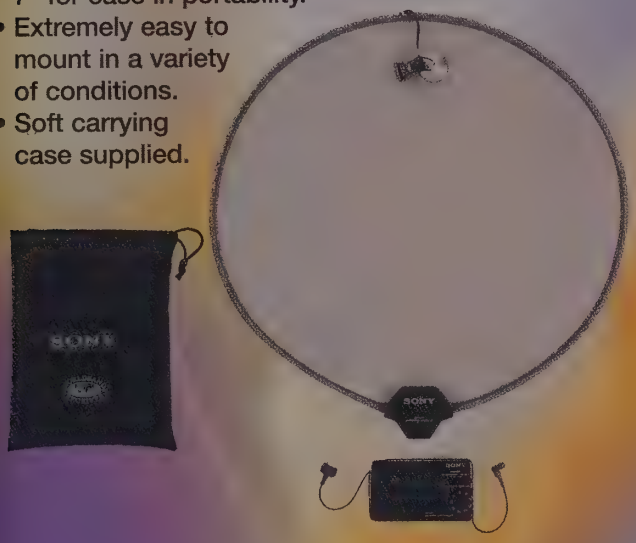
Sony receivers let you survey breaking events and world business trends, enhance your language skills or your cultural awareness, follow major sporting events or simply track the weather. And user-friendly functions, such as built-in clocks and convenient tuning methods make it easy.

AN-PL1

Active Antenna

This lightweight active portable loop antenna enhances your receiver's sensitivity for clearer reception of even weak signals.

- Provides high sensitivity and noise reduction.
- Active antenna controller with rotary tuning.
- Works with most Sony World Band Receiver radios
- 19" loop antenna that folds to 7" for ease in portability.
- Extremely easy to mount in a variety of conditions.
- Soft carrying case supplied.



ICF-SW7600G

Turn on the ICF-SW7600G and meet the cultural heroes and sign icons of countries around the world. Ten-key Direct Access tuning and 22 station memory presets make finding your favorite stations push-button easy.

- AM (LW/MW/SW) and FM Stereo Reception.
- PLL Quartz Frequency Synthesized Tuning for accurate and drift-free tuning.
- Synchronous Detection Circuitry to reduce fading and interference.
- Dual Conversion Super Heterodyne Circuitry for increased sensitivity.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Manual and Auto Scan Tuning.
- 1 KHz Step Tuning to lock in on precise station reception.
- Built-in Clock with sleep timer and dual standby functions.
- Large 3" Speaker.
- Dimensions (WHD): 7 5/8" x 4 3/4" x 1 5/16".

From the comfort of home.

Follow the course of world politics and business...

ICF-SW77

Staying on top of world events is virtually [illegible] with the ICF-SW77. A 5-event programmable timer [illegible] of programs you don't want to miss and allows unattended [illegible]. Up to 162 memory presets help you keep track of favorite [illegible] for easy tuning, while Station Name Tuning allows direct tuning by broadcaster name.

- AM (LW/MW/SW) and FM Stereo Reception over a wide range of frequencies.
- PLL Quartz Frequency Synthesis Tuning for optimum stability and better reception.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Station Name Tuning (with editable labels).
- Synchronous Detection Circuitry to reduce fading and interference.
- Backlit LCD Display with contrast adjustment.
- 10-Key Direct Access Tuning.
- Universal Time Coordinator with world time scale.
- Manual or Automatic Scan Tuning with 50 Hz step tuning.
- Electronic Rotary Tuning Dial for convenient manual tuning.
- 5" x 3" Speaker for excellent reception of voice or music broadcasts.
- Dimensions (WHD): 10 7/8" x 6 7/8" x 1 7/8".

With Sony World Band Receiver radios, you can tune in broadcasts on familiar FM and AM and shortwave frequencies. Short (higher-frequency) waves are reflected by the Earth's ionosphere, rather than absorbed like long and medium waves, so they can travel great distances—and you can hear programs from halfway around the world.

Because shortwave broadcasts can be adversely affected by atmospheric conditions, programs are often broadcast at various times and/or on various frequencies. The advanced reception and tuning features of Sony World Band Receiver radios help to maximize your ability to receive the programs you want to hear.

ICF-2010

Performance and convenience distinguish the ICF-2010. It begins with an industry reputation as one of the best World Band radio receivers ever made. Combine this with tuning accuracy and reliability and the ICF-2010 has become a reference standard of the industry. Direct Access tuning for directly keying in station frequencies and 32-station memory. With the ICF-2010, you can receive Air Band as well as FM and full AM frequencies.

- Full AM Band Coverage (LW/MW/SW) plus FM and Air Band Reception.
- SSB Reception for a wider range of listening options and improved reception of weak signals.
- Dual PLL Quartz Frequency Synthesizer tuning for stable reception.
- Comprehensive Detection [illegible] tuning and interfer[illegible]
- [illegible] Band Width.
- [illegible] automatic and manual [illegible] tuning.
- [illegible]

ICF-SW40

Plus a 13 band range of frequencies, the ICF-SW40 is an easy-to-operate, user-friendly receiver that's ideal for polishing your language skills and a host of other uses.

- Easy to use design combines the ease and familiarity of conventional analog operation with the accuracy and stability of digital tuning.
- AM (LW/MW/SW 1-11) and FM Stereo Reception.
- PLL Quartz Digital Synthesized Tuner for drift-free tuning.
- 20 Station Memory Presets for easy tuning of favorite stations.
- 1 KHz Step Tuning to lock in on precise station reception.
- Built-in Clock with dual standby function.
- Dimensions (WHD): 6 3/4" x 4 1/4" x 1 7/16".

Or immerse yourself in international cultures.

Savor local color when you travel...

ICF-SW100S

World Band Receiver Radio Kit

Experience any destination as the locals do with the ICF-SW100S. About the size of an audio cassette and weighing less than 8 ounces, it's ideal for travel. You can tune in local broadcasts or search for frequencies you don't receive at home. And its World Time Clock, with 24-city name/time display, lets you calculate the time in any city worldwide.

- AM (LW/MW/SW) and FM Stereo Reception.
- PLL Quartz Frequency Digital Synthesized Tuning for accurate and convenient tuning.
- Dual Conversion Super Heterodyne Tuner Circuitry for high sensitivity.
- 50 Station Memory Presets.
- Editable Station Labels.
- Auto Scan, Manual and 10-Key Direct Access Tuning.
- Built-in Clock with sleep timer and dual standby function.
- 1 KHz Step Tuning to lock in on precise station reception.
- Kit includes compact stereo headphones, 120 VAC adaptor, active antenna and soft carrying case.
- Dimensions (WHD): 4 3/8" x 15/16" x 2 7/8"

ICF-SW30

[illegible] sensitivity [illegible] world receiver [illegible] for [illegible] students—just about anywhere. With a News/Music Tune Switch, it offers maximum clarity whether you're listening to voice or music.

- [illegible] Receiver including FM Stereo, AM and SW Bands 1-10.
- Dual Conversion Tuner Circuitry for high sensitivity.
- 16 Station Memory Presets.
- Digital Synthesized Tuning to simplify tuning for desired [illegible]
- Auto [illegible]
- 1 KHz [illegible] on precise station reception.
- Built-in [illegible]
- Dimensions (WHD): 6 3/4" [illegible]

Whether you are listening to programs at home or abroad, for business or pleasure, you can count on the sensitivity, selectivity and stability of Sony receivers to deliver the clear reception and ease of operation that you want from a world band radio.

Sony receivers offer such features as Synchronous Detection, PLL Quartz Synthesis Tuning, Direct Access tuning and Single Side Band reception to ensure the ultimate in clear reception and easy tuning. Sony World Band Receiver radios—there's a model that's right for you.

ICF-SW12

With 11 band receiver and a universal Time Coordinator, the ICF-SW12 with protective cover is an ideal radio to take on your travels. Convenient features make it easy for you to tune in a worldwide range of the airwaves.

- 11-Band Receiver including FM, AM and SW Bands 1-9.
- Designed for travel. Lightweight and with protective cover.
- World Time Clock and Universal Time Coordinator to maintain time for cities worldwide.
- Backlit LCD Display for easy viewing of time and alarm setting.
- LED Tuning Indicator for precise center frequency indication and accurate tuning.
- Built-in Alarm with convenient snooze button.
- Dimensions (WHD): 4 1/2" x 4 3/8" x 3 1/8"

ICF-SW11

Whether you travel across the country or around the world, the compact ICF-SW11 can bring you the programs you want to hear.

- 12-Band Receiver including FM Stereo, MW, LW and SW Bands 1-9.
- Easy Analog Tuning with LED Indicator.
- FM Stereo Headphone Jack for private listening in noisy environments.
- DC-in Jack for optional AC adapter to conserve battery life.
- Compact size.
- Dimensions (WHD): 6 1/2" x 3 3/4" x 1 5/16"

But never be far from home.

Also available in teeny weeny version.
ICF-SW07
The Sony ICF-SW07 World Band Radio® holds nearly 3000 frequencies in memory, and is still small enough to take anywhere. Its replaceable EEP Rom Chip is preprogrammed with the world's top stations. And each year Sony will offer an updated chip for less than twenty dollars. You can also preset up to 100 of your favorite stations with the "My Memory" button. And tuning is easier than ever. So listen to the world from anywhere in yours, and leave the satellite dish at home.
WORLDBAND RECEIVER

IC-R75

Pull out the weak signals

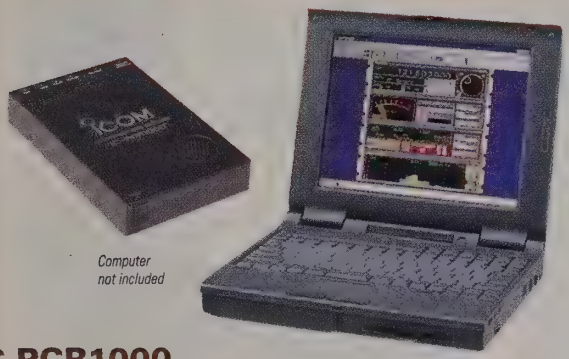
30 kHz - 60.0 MHz†

Commercial grade • synchronous AM detection (S-AM) • optional DSP • all mode • triple conversion • auto notch filter • twin passband tuning (PBT) • large front mounted speaker • large display • well spaced keys and dials • 1000 memory channels • up to two optional filters • PC remote control with ICOM software for Windows®.

"A versatile HF/6-meter receiver that offers a good measure of performance in a compact package. All mode capability for the ham and utility listeners and synchronous AM for the SWLs should make the IC-R75 a popular choice for a wide variety of radio enthusiasts." – QST, *1/00*

ICOM WIDE BAND RECEIVERS

HEAR MORE OF WHAT YOU WANT TO HEAR



Computer not included

IC-PCR1000

The original "black box" is still best

100 kHz – 1.300 GHz†

AM, FM, WFM, USB, LSB, CW • unlimited memory channels • real time band scope • IF shift • noise blanker • digital AFC • "VSC" voice scan control (when activated, stops only on modulated signals) • attenuator • tunable bandpass filters • AGC function • S meter squelch • CTCSS tone squelch • large selection of tuning steps and scans • external speaker level control • 9600 baud data capable • DSP optional • download and demo the latest software for free: <www.icomamerica.com>

"The PCR1000 has something to intrigue and satisfy everyone. This is a fun product" – QST, *7/98*

IC-R8500

The experts choice

100 kHz - 2.0 GHz†

Commercial grade • all mode • IF shift • noise blanker • audio peak filter (APF) • selectable AGC time constant • digital direct synthesis (DDS) • 1000 memory channels • built-in CI-V command control–no additional level converter required • RS-232C port for PC remote control with ICOM software for Windows®.

"If you want a receiver that is both a superior world band radio and a solid scanner, the new ICOM IC-R8500 is the best choice." – Passport to World Band Radio, 1998

IC-PCR100

Much like its big brother, but for less

100 kHz – 1.300 GHz†

AM, FM, WFM • many of the same features and performance as the IC-PCR1000 • designed for Windows® 95 or 98 • download and demo the latest free, full version software today: <www.icomamerica.com>

Computer not included

ICOM world band receivers are insisted upon by experts and serious amateurs the world over. For more information **call AES today.**

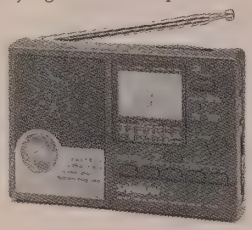
ICOM®

www.icomamerica.com

©2000 ICOM America, Inc. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. Questions? Contact AES or contact ICOM America Tech Support on CompuServe's® HamNet forum at 75540,525 or send e-mail to 75540.525@compuserve.com. CompuServe is a registered trademark of CompuServe, Inc. Windows is a registered trademark of Microsoft Corporation. RCVREHHAESS100

SANGEAN

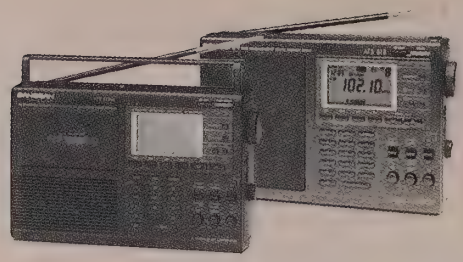
ATS-505 Professional Digital Multi-band Receiver • AM/FM stereo/shortwave and SSB reception • Continuous coverage – tunes all shortwave bands and any frequency in-between • Auto memory scan – scans 45 presets, playing each in sequence • Auto preset system – determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock – 12/24 hour display, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones..... **$129.95**



ATS-303 PLL synthesized. 13 bands, covers 2.3 to 7.3 and 9.5 to 26.10MHz. AM, FM, FM stereo with headphones. Selectable continuous tuning across frequency range and/or shortwave band. Time and frequency display, auto or manual station search, 20 station memories. Large LCD display, tuning LED. Clock with radio or buzzer alarm and adjustable sleep timer. MW 9K/10K switch for overseas. Low battery icon. Requires 4 "AA" batteries or external. 6V DC. 6½"w x 4⅜"h x 1⅜"d,15 oz Closeout **$79.95**

DT-200V Broadcast and TV Band Receiver (left) Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, autoscan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4⅜"h x 2⅜"w x ¾"d, 5 oz..... **$79.95**

ATS-909 FM-Stereo/MW/LW/SW PLL Synthesized Receiver Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM wide/narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses four "AA" batteries or 6V DC; AC adapter incl. 8½"w x 5⅜"h x 1⅜"d, 1.9 lbs..... **$279.95**



ATS-818CS *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11½"w x 7¾"h x 2¾"d, 5 lbs **$229.95**

ATS-818 *(right)* **World Band Receiver** All features of the ATS-818CS, w/out cassette recorder **$179.95**

ATS-404 Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver CONTINUOUS COVERAGE – tunes continuously all shortwave bands and any frequency in between. AM reception with 9k/10k switch, FM plus FM stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries 6½"w x 4"h x 1¼"d..... Special **$99.95**

ATS-606A Compact Digital All Band World Receiver Continuous ALL BAND coverage 153kHz to 30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1khz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5¾"w x 3½"h x 1¼"d **$169.95**

SR-77 Miniature AM and FM Stereo portable Re-ceiver Deep Bass Boost feature. Uses single "AAA" battery. Only 3"w x 1½"h x ⅝"d. No speaker, comes with stereo earphones Closeout **$29.95**

DRAKE

R-8B Communications Receiver Covers 10kHz-30MHz (35-55MHz, 108-174MHz with optional VHF converter) • Dual VFOs • 1000 memories • Multi-function scanning • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive preamp/attenuator & noise blanker • S-meter • Passband offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mode & bandwidth • Selectable sideband • Synchronous AM detector • RS-232 computer control • Optional interface software for MS-DOS • Speaker/recorder connections • Multi-voltage power supply • 13½"w x 5¼"h x 13"d, 13 lbs **$1199.95**

1590 VHF Converter *(left)* 35–55MHz and 108-174MHz..... **$219.95**

MS-8 External Speaker *(right)* for R-8B **$49.95**

SW-8 Communications Receiver Covers 100kHz-30MHz, 87-108MHz (FM stereo w/headphones) and 116-136MHz aircraft • 70 scannable memories • Standard and synchronous detection AM • Selectable SSB reception on the medium and shortwave bands • Direct frequency entry keypad • 0.5uV sensitivity • Dual 6 or 4kHz AM selectivity • 2.3kHz SSB selectivity • High contrast LCD readout • 100Hz tuning accuracy • Dual-mode clock and timer • AC adapter supplied (optional batteries for portable operation) • 11"w x 5¼"h x 11¾"d, 10 lbs.. **$799.95**

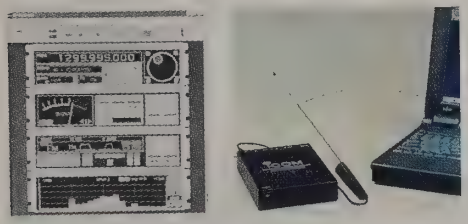
YAESU

FRG-100B High Performance Communications Receiver Covers 50kHz-30MHz – CW, SSB, AM modes; FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning . Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9⅜"w x 3½"h x 9½"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)* **$599.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

ICOM

R-3 Communications Receiver Tune in wherever you go. Wideband, all mode receive capability from 0.5–1300MHz (cell blocked) in 8 frequency bands with 1000 alphanumeric memory channels. FM, WFM, AM, SSB/CW modes. Observe band conditions easily with a real-time band scope. Voice Scan Control function pauses scan when modulated signals are received. Features: Tunable bandpass filters • Large internal speaker • PC-programmable • Re-ceiver-to-receiver cloning capability • User-programmable tuning steps • Memory edit for easy revision of memory contents • Memory copy function • Easy mode for simplified scanning • Optional CI-V compatibility • Built-in 20dB attenuator • Auto Freq-uency Control function • Noise blanker and Auto Noise Limiter functions • Requires 4 AA NiCad or alkaline cells or 4.8–16V DC • 2.3"w x 5.1"h x 1.2"d, 10.9oz. This device has not been approved by the Federal Communications Commission. This device may not be sold or leased, or be offered for sale or lease, until approval of the FCC has been obtained.



PCR-1000 Communications Receiver Computer Turn a PC into a world-wide communications receiver. Connect the PCR1000 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. Listen to favorite stations in the background while running other applications. 100% PC hardware external, IBM PC compatible. Everything needed to connect to your computer included: power supply, built-in speaker, antenna, RS-232 cable and software • Frequency Coverage: 0.01000-823.999999MHz, 849.000001-868.999999MHz, and 894.000001-1300.00MHz (Cell blocked and specifications guaranteed 0.5-1300MHz, only) • Modes: WFM, FM, AM, SSB, CW • 1000 mem. channels per file • Requires: IBM® compatible • Windows®3.1 or 95 • Intel 486DX4 or better • 10MB HD free space • 16MB RAM • FD drive, RS-232C (38400 bps or faster) serial interface • 640 x 480 display or greater Special w/Instant Coupon (expires 6/30/00) **$349.95**

PCR-100-12 Communications Receiver Computer Wide frequency coverage: 0.01-1300MHz (cell blocked). Listen to marine, shortwave, CB, amateur radio, FM, TV audio, commercial radio, satellites, aviation, etc. • Easy to use with 2 selectable control panels • AM, FM, WFM modes • CTCSS decode • Tunable bandpass filter • 13 tuning steps • Band scope • 20 banks of 50 memories each • Stereo audio output • Auto Noise Limiter • RF attenuator • Digital S-meter • S-meter squelch • Includes: wire antenna, OPC-743 serial cable, AC adapter and receiver software • Requires: Windows 95 or 98, 486DX4 or better, 10MB free HD space, 16MB memory, serial interface (38400 bps), 640x480 resolution Special w/Instant Coupon (expires 6/30/00) **$199.95**

R-75 HF + 50 MHz Communications Receiver Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode– USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2- level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and optional UT-106 DSP unit. It operates from 13.8V DC @1.1A, or supplied AC adapter. 9½"w x 3¹⁄₁₆"h x 9⁵⁄₃₂"d, 6 lbs., 10 oz.. w/Instant Coupon (expires 6/30/00) **$699.95**

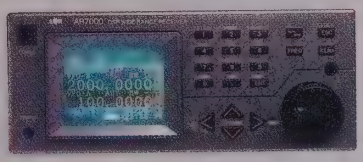
R-8500 Super Wide Band All Mode Receiver Covers 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes. AM, FM, WFM, LSB, CW and optional TV-R7100 TV/FM adapter (view TV broadcasts when connected to CRT monitor). Dual VFOs and direct keyboard entry. Versatile scanning functions: 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write area of 100 channels and skip-area of 100 channels. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus one priority. RIT, selectable AGC, noise blanker, tone, squelch, recording jack. Selectivity: 500Hz, 2.3, 6 and 15kHz. RS-232C interface and voice synthesized readout. 110/220V AC; optional 12V kit available. 11⅞"w x 4⅞"h x 10⅞"d, 16½ lbs ..... Special **$1499.95**

AOR

AR-16B Wide Band Handheld Scanning Receiver 500KHz to 1300 MHz (cellular blocked) • Modes: AM, FM-w, FM-n • 500 memory channels, 5 banks • 25 scan search banks • Scans 20 channels per second • Preset 21 frequency band settings • Automatic squelch • S-meter • Monitor function for weak signals • Back-lit keypad and display • Includes antenna, two alkaline batteries, handstrap, manual • 2.4"w x 4.2"h x 1.2"d, 5.4 oz... Closeout **$229.95**

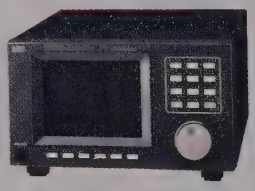
AR-8200B All-Mode Wide-Band Modular HT Receiver • 500kHz to 2040MHz (cell blocked) • 1000 memory channels • Alpha-numeric display • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW • Program-mable tuning steps • Spectrum display scope function • Computer control with free downloadable software • Optional slot cards for memory expansion • Noise limiter • Attenuator • CTCSS squelch and search, tone eliminator • Records or plays 20 sec. of audio • Battery saver • Uses 4 AA NiCad batteries (supplied), alkalines or external 12V • 2.4"w 5.7"h x 1.0"d, 0.75 lbs... **$549.95**

AR-5000B High Performance Wide-Band Receiver 10KHz to 2036MHz (cell blocked) • 1000 memory channels and 20 search banks with EEPROM storage • Multiple IF bandwidths • Scans 45 channels per second • AM, FM, LSB, USB, CW modes • Triple conversion IF stage • RS-232C port • 20 search banks • Manual tuning dial • N-type and SO-239 antenna connectors • 12VDC @ 1A, adapter included • 8"w x 4."h x 10"d, 4 lbs..... Special Order **$1899.95**



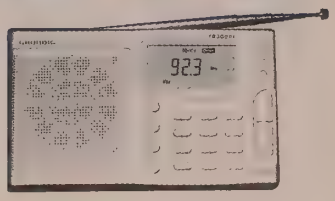
AR-7000B Advanced Technology Wide Range Receiver 100KHz to 2GHz (cell blocked) • Triple conversion + DSP IF stage • Color LCD video display • Selectable NTSC or PAL video output • 1500 channels • FM-w, FM-n, AM, USB, LSB, CW• 2 VFOS • Alpha-numeric channel labels • AM, FM, LSB, USB, CW • Computer programmable • RS-232C and DIN ports • Spectrum display • Adjustable squelch tail delay • 8 programmable search banks • 8 programmable scan banks • Manual tuning dial • Scans 20 channels per second • BNC antenna connector • 12VDC @ 1A, adapter included • 3.5"h x 8.6"w x 9.5"d, 7.7 lbs ..... Milwaukee Only **$1169.95**

SDU-5500 Spectrum Display Unit Visually identify signals and relative strength • Works with AR-5000B/AR-3000AB, ICOM base and other receivers with a 10.7MHz IF output • 10 MHz bandwidth – 10 kHz to 2600 MHz • 5 kHz/30Hz resolution • White and blue mono LCD monitor.. **$1099.95**



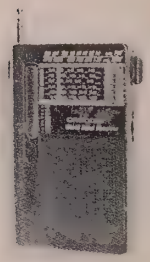
AR-3000AB All-Mode High Performance Professional Monitor • 100KHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Triple conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz.. **$1099.95**

GRUNDIG



YACHT BOY 300PE Covers AM and FM broadcast bands with FM stereo via headphones, and 13 shortwave bands. LCD display, direct entry tuning, 24 preset memories. Quartz clock, AC adapter supplied. Requires three "AA" batteries (included) or supplied AC adapter. 5½"w x 3½"h x 1¼"d **$99.95**

YACHT BOY 400PE Covers 1.6 to 30MHz, all SW bands, FM broadcast band (stereo with earphones), AM and long wave broadcast bands. Direct keypad frequency entry or scan tuning with 40 memories. SSB reception with fine tuning control, high-low tone switch. Tilt stand, telescoping antenna. Multi-function backlit LCD display shows dual zone 24 hour time, frequency, band and signal strength. Dual selectivity. Automatic turn-on and sleep timer. Includes stereo earphones, external reel-up antenna for shortwave. Includes carrying pouch and AC adapter. Requires six "AA" batteries 4½"h x 7¾"w x 1⅜"d, 1½ lb **$199.95**



Mini-World 100PE World Band Pocket Radio Puts the world in your pocket! Covers AM/FM (FM stereo via headphones) and 6 shortwave bands. Built-in speaker, telescoping and ferrite bar antennas, LED indicator. Includes earphones and belt clip. Uses two "AA" batteries (included). Only 4"h x 2½"w x ¾"d **$39.95**

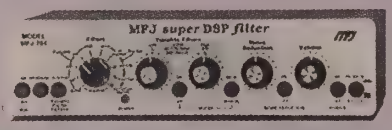
TRAVELLER II *(left)* Covers AM/FM broadcast and 5 shortwave bands. Multi-function display, push-button and slide controls, tuning indicator. Clock with travel alarm and World Time selection switch, jacks for earphones. Uses three "AA" batteries (included). 5½"w x 3½"h x 1¼"d .... Closeout **$49.95**

TRAVELLER III DIGITAL *(right)* Covers AM/FM broadcast and shortwave bands. Multi-function LCD display, pushbutton and slide controls, 20 preset memories plus alarm/clock functions. Includes carry case, SW listening guide ..... Closeout **$99.95**

SATELLIT 800 Satellite 800 Millennium AM/FM/SW/LW/Air Digital Receiver Covers longwave, AM and shortwave: continuous 100-30,000KHz. FM 87-108MHz. VHF Aircraft Band: 108-137MHz • Superior audio quality and receives FM stereo with included high-quality headphones • Direct digital keypad combined with manual tuning • 70 user-programmable memories • Upper and lower sideband capability (USB/LSB) • Large 6" x 3½" multifunction LCD • Last station memory • Synchronous detector for superior AM and shortwave reception • Multi voltage (110, 220V) AC adapter • Dual clocks • Low batter indicator • 20½" X 9"h x 8"w, 14½ lbs **$499.95**

MFJ ENTERPRISES, INC.

8100W Regenerative A 10 ft. wire brings stations world-wide loud and clear. Tune international shortwave, Hams on SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9-volt battery, walkman-type earphones or plug-in speakers. 7"w x 2½"h x 6"d, 1 lb ..... wired **$89.95**

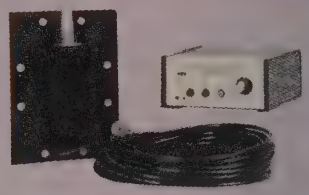


784B Super DSP Filter Eliminates those hetrodynes; reduces noise and interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp with AGC. 12V DC or 110VAC with MFJ-1315. 2½"h x 9"w x 6"d **$229.95**

752C SSB/CW Audio Filter Pull out stations from noise and interference. Peak, notch, low or high pass control helps eliminate hetrodynes and interference. Filters tune 300 to 3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for two radios. Uses 9 to 18VDC or 110VAC with MFJ-1312B. 10"w x 2"h x 6"d **$89.95**

956 LW/MW/SW Pre-selector/Tuner Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d **$49.95**

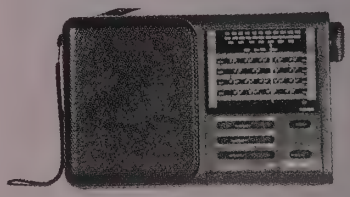
959B Antenna Tuner and Pre-amp For 1.6-30MHz, provides an impedance match between antenna and receiver for best reception. 20dB pre-amp. Gain and 20dB attenuator. Two antenna inputs for two receivers. 9-8V DC or 110V AC with MFJ-1312 adapter. 5"w x 2"h x 6"d **$99.95**



1024 Outdoor Active Antenna For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect made by supplied 50 ft. coax to control unit, containing gain control and 20dB attenuator. Switches select between two receivers and auxiliary antenna. LED "on" indicator. Auxiliary in/output jacks. 12VDC or 110VAC with MFJ-1312. Control unit: 6"w x 2"h x 5"d, Outside module: 3"h x 4"w x 4"d **$129.95**

1020B Indoor Active Antenna Covers 300 kHz–30MHz; five bands. Telescoping (21") antenna provides good signal strength. Functions as a preselector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V with MFJ-1312B. 5"w x 2"h x 6"d **$79.95**

462B Multi-Reader Easily decodes CW, RTTY, ASCII, AMTOR signals from amateur, commercial, military, weather, aero and marine. Displays decoded messages on a 16-character LCD display. Simply plugs into receiver phone jack. 12V DC, 5½"w x 2½"h x 5½"d **$169.95**



8121 World Band Receiver Receives FM, medium wave, long wave and 18 shortwave bands. Sony integrated circuit design provides excellent sensitivity and selectivity. Built-in telescopic antenna. LED tuning indicator. World time zone and frequency charts on back panel. Built-in 3" speaker. Size: 4½"h x 7"w x 1½"d Works on 6V DC or (4) AA batteries **$39.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 W!
Browse Our Store On-Line at www.aesham.com

uniden

MARINE

MC-1010 80 channel Marine VHF Radio • All USA and International channels, 10 weather channels • Ultra compact rugged construction • Durable design microphone • Triple watch feature • Memory scan • Weather scan • 25 & 1W output • LCD display • External speaker jack • 12V DC @ 4.5A • 6⅛"w x 4⁵⁄₃₂"d x 2⅛"h, 1 lb. 12 oz..... **$139.95**

MC-1020 80 channel Marine VHF Radio • All USA and International channels, 10 weather channels • Ultra compact rugged construction • Quik Command™ microphone with touch channel 16 and 19 key • Triple watch Plus™ • Memory scan • Weather scan and alert • 25 and 1W output • LCD display and dimmer, back lit keypad • Public address • External speaker jack 12V DC @ 5A • 6⅛"w x 4⁵⁄₃₂"d x 2⅛"h, 1 lb. 12 oz..... **$149.95**

MC-535 Marine VHF Radio All USA and International, 10 weather/80 marine channels • Instant channel 16 • Memory scan • Dual watch • LED channel display • 25 and 1W output • Weather resistant • Front speaker, external speaker jack • 12 VDC @ 5A 6⅛"w x 7⁹⁄₁₆"d x 2³⁄₁₆"h, 2.4 lbs. **$109.95**

KENWOOD

MARINE

TKM-707 SSB Radiotelephone A high-performance unit designed to meet the stringent demands of marine operation. Utilizes a heavy duty rustproof aluminum chassis and the highest quality parts to maximize performance • 150W RF output power • 2 MHz-23MHz Marine operation with 500kHz-30MHz general coverage receiver • 198 memory channels • Multi-scanning • 2182kHz emergency alarm built-in • Optional tuner..... Special Order **$1249.95**

uniden

MARINE HANDHELD

HH-980 Deluxe 90 channel Marine VHF Handheld • Microprocessor controlled • All USA and International channels, 10 weather channels • Weather alert • Front-fire speaker • Watertight • All-channel scan • Instant channel 16 • 5/1W-selectable power • Dual watch/triple watch • LCD channel display • 7.5V @ 850mA from supplied rechargeable Nicad batt. pack • 2⅜"w x 1⁵⁄₁₆"d x 5⅜"h, 1 lb. 12oz..... Closeout **$169.95**

HH-940P 90 channel Marine VHF Handheld • All USA and International channels, 10 weather channels • All channel scan • Instant channel 16 and 9 • Triple watch electronic touch keypad • Backlit LCD display • 1W power output • Weather alert • Flexible rubber antenna • Keypad lockout • Battery charge indicator • Waterproof, lightweight & wearable • Rechargeable battery, drop-in charger • 2½"w x 1¼"d x 4¹³⁄₁₆"h, 8.8 oz..... **$149.95**

HH-955 90 channel Marine VHF Handheld • All USA and International channels, 10 weather channels • Memory scan • Backlit LCD display • Triple watch • Instant channel 16 and 9 • Weather alert 5 and 1W output • Flexible rubber antenna • Keypad lockout • Battery charge indicator • Weather resistant housing • Uses alkaline batteries or Ni-cad rechargeable battery (not included) 2½"w x 1¾"d x 6½"h, 19.5 oz..... **$109.95**

YAESU

AIRCRAFT

VXA-100-6/41B Aviator Pro **Features:** 5W TX power (PEP 1.5W typ.) • 8 character alpha numeric display • 3-way display titling • Internal sidetone • 300 memory channels • Automatic Noise Limiter (ANL) • One-touch emergency frequency access • 10 NOAA weather channel receive • Automatic active weather channel scan • Priority dual watch function • Back-lit keypad and display • One-touch control knob • RX battery saver • Optional battery case • PC programming capability • MIL-STD 810 approved **Accessories Included:** Nicad battery, headset adapter & belt clip Special **$299.95**

VXA-100-16/41B Aviator Pilot **Features are the same as VXA-100/6 with the addition of:** VOR TO/ FROM display • Course Deviation Indicator (CDI) display • Split channel operation..... **$499.95**

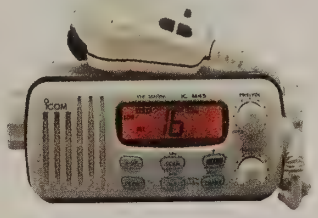
ICOM

MARINE

M-710 SSB Marine Transceivers Rugged, 150W SSB Transceiver, 1136 channels with 160 user-programmable memories, PC programmable, alpha numeric readout on large LCD.

M-710 (21) General version without 2182kHz alarm, marine bands only ..... **Special Order $1399.95**

M-710-05 (22) Open version, covers 1.6 to 27.5 MHz, has 2182kHz alarm. **Special Order $1599.95**



IC-M45AW VHF 25W Marine Transceiver Water-resistant gaskets are used throughout, including the mic. The durable, one piece aluminum diecast chassis provides dependability and good heat dispersal. Large backlit display shows all info at a glance • **'Tag' scan system** – add or delete channels at the push of a switch • **'Smart' microphone** – change channels or select output power without touching the front panel • **Dual and tri-watch functions** – monitor channel 16 while operating on another • All International and US channels are available, plus 10 weather channels w/weather alert function • Instant access to channel 16 and the call channel • Low battery indicator • 0.79"h x 2.36"w x 5.5"d... **$199.95**

IC-M3A Mini Handheld Marine VHF Radio Programmable for U.S. and International channels plus 10 weather channels w/alert • Independent channel 16 • Full function and priority scanner • Dual/tri-watch - monitor channel 16 while operating another • 1/5W output • Large backlit display shows info. at a glance • Water resistant • Includes 6 NiCad batteries and wall charger 2¼"w x 5½"h x 1¹⁄₁₆"d, 14.4 oz..... **$159.95**

AIRCRAFT

A-22 VHF Air Band Transceiver Covers (COM) 118.-136.975, (NAV) 108-117.95 MHz and memory channels Programmed scan, memory scan and lock • 5W output • Instant 121.5MHz • **NAV features:** 200 channel VOR nav with CDI, radial heading TO/FROM VOR, auto bearing set • Semi-duplex, combines VOR/COM oper. • Incl. Ni-cad rechargeable battery and wall charger 2½"w x 7¾"h x 1½"d, 1.4 lbs..... **$549.95**

Used & Demo Equipment lists

Updated regularly on the web. Check them out and order **On-line**

CSI® Connect Systems Inc.

CD-2 Communications Decoder Unit When mobile, this unit makes it easy for you to use open repeaters and autopatches because it decodes and displays any CTCSS, DCS or DTMF codes other amateurs are using on the channel. When at the base, the RS-232 port exports all decoded CTCSS/ DCS or DTMF data to your PC allowing use of CD-2P software. Maintains a history of CTCSS/DCS/ DTMF data from the CD-2 occurring on the channel being monitored, creates usage graphs, etc. PC/DOS based. 12–15 VDC. 4.9"w x 4.5"d x 1.9"h, 1 lb..... **$249.95**

CD-2P PC Program for CD-2..... **$99.95**

For additional information, contact CSI at:
Phone: 805-642-7184 • Fax: 805-642-7271
e-mail: sales@connectsystems.com
Internet: www.connectsystems.com

Pipo® Communications

HIGH QUALITY DTMF ENCODERS

12-digit or 16-digit pads • Steel Keys • Sealed Gold Dome Contacts • Self-contained • Voltage 8.5 to 16V DC • NO RFI • Simple 3-wire connection • Temperature -22 to +160 F • Adjustable level and timing • Front panel adjustable • Includes template, hardware and schematic

PK-1 *(left)* 2.65"h x 2"w x .045"..... **$71.95**
PK-2 *(right)* 2.65"h x 2.5"w x .045"..... **$76.95**

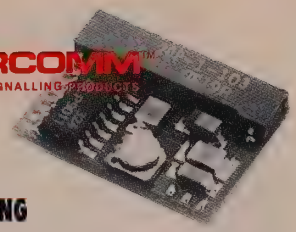
K-Series option: features a built-in keying circuit & relay to automatically key a transmitter or other system. When any key is depressed, a relay closes for 0–3 seconds, time is adjustable with a trimpot.
PK-1K $78.95 – PK-2K $83.95

M-Series option: a special encoder package for mounting any PK-1/1K, PK-2/2K PIPO encoder to surfaces that are inaccessible from the rear such as walls, mobile dashboards, panels, etc. Consists of a frame which secures to the mounting surface with the encoder press-fitting into the frame.
PK-1M $71.95 – PK-2M $76.95

TOP TRADES...
for clean, late model SSB & FM Gear. Trade-in value depends on electrical and physical condition - determined by Service Dept. examination. Call *Toll Free* for our Quote Today!

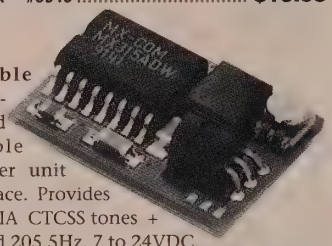
we have a
SECURE web site
at www.aesham.com

NORCOMM™ TONE SIGNALLING PRODUCTS

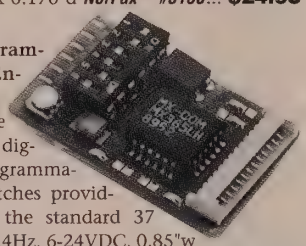


TONE SIGNALLING

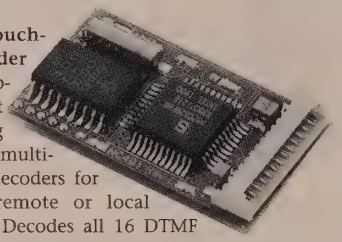
NC-101 Encoder Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz to 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h *NorFax™ #5040* **$19.95**



NC-104 Programmable Encoder Sub-mini., field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d *NorFax™ #5150*... **$24.95**



NC-106 Programmable CTCSS Encoder/Decoder A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h *NorFax™ #5230*..... **$59.95**



NC-401 Touch-Tone® Decoder Unique micro-mini unit combining two distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24V DC. 0.80"w x 1.37"l x 0.23"h. *NorFax™ #5545* **$59.95**

More Info: *Call the NorFax™ automated 24-hr. fax retrieval system – 530-477-8403*

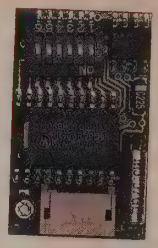
Once Again
THE ASSOCIATES®

AES is bringing you instant approval on a revolving credit basis. Apply in person only.

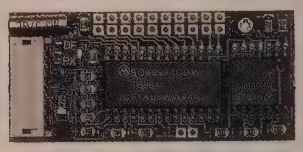
Benefits:
- Quick Approvals
- No Down Payment or Annual Fee
- Open Line of Credit for Future Purchase
- Makes Budgeting Easier

COMMUNICATIONS SPECIALISTS, INC

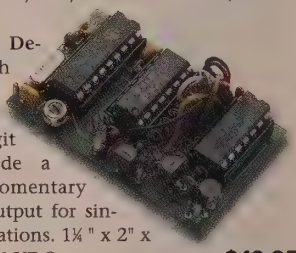
TONE ENCODERS & DECODERS



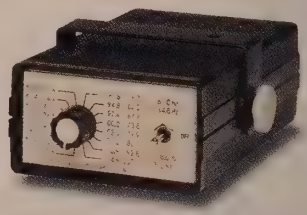
SS-64 Programmable CTCSS Encoder Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC **$28.95**



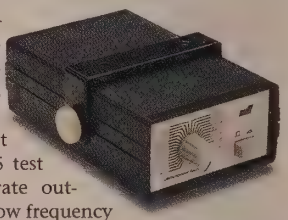
TS-64DS Field programmable CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1¼" x 2", 0.3", 6–28 VDC **$57.95**



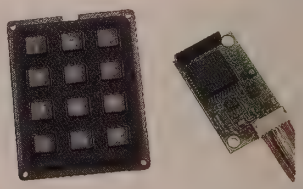
DTD-1 DTMF Decoder Small, high quality, low cost. Decodes any one of 5,040 4-digit codes to provide a latched or momentary open collector output for single function operations. 1¼ " x 2" x 0.4", requires 7–16 VDC..... **$49.95**



TE-32 Multi-tone Encoder Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5¼" x 3.3" x 1.7", 6–30 VDC..... **$49.95**



TE-64 Multi-purpose Encoder Provides 64 tone frequencies. Includes 32 sub-audible, 19 burst-tone, eight Touch-Tone® and 5 test frequencies. Separate outputs for high and low frequency ranges. 5¼" 3.3" x 1.7", 6–30 VDC **$79.95**



ID-8 Multi-Featured Automatic Morse ID'er Programmable via 12-button pad. Eight changeable messages, 200 characters total. CW speed: 1-99 wpm; ID interval timing: 1-99 min.; ID hold-off timing: 0-99 seconds; CW tone: 100-3000Hz. Board: 1.85" x 1.12" x .0.35"..... **$69.95**

Many wiring diagrams for installing ComSpec units in older equipment are available at **www.com-spec.com.** Also posted is a list of documents that can be obtained from their *Fax-on Demand* system.

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ ENTERPRISES, INC.

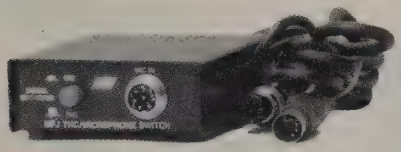
8621 **2 meter Packet Data Radio** High-performance thru 9600 baud. Plug in TNC cable*, your antenna and power – you're ready for packet. Crystal control on 145.01MHz, 5W output. Requires 12 VDC @ 1A. 5"w x 5½"d x 1½"h..... **$119.95**

8631 **220MHz Packet Data Radio** Same as 8621, but with 223.700MHz and 3W output..... **$139.95**

8621X2 **Dedicated VHF Data Radio for APRS** Automatic Packet Reporting System transceiver. Ready to go on 144.39MHz..... **$139.95**

***See Price Guide for pre-wired 8621-to-TNC cables. Crystals for other packet channels may be ordered from MFJ by calling 1-800-647-1800.**

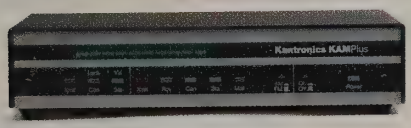
781 **DSP for all TNCs** This separate unit gives your Kantronics, Timewave, etc TNC Digital Signal Processing power **$119.95**



1272B/M **TNC Switch** Pushbutton selection for voice or digital. You specify the radio and TNC connection **$39.95**

www.mfjenterprises.com

Kantronics

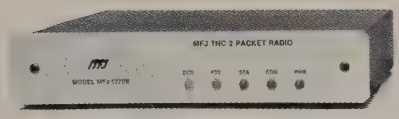


Multimode Data Controllers

KPC-3 Plus/128 1200 bps • Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN • Personal Mailbox (PBBS) now supports multiple calls • Remote access, sensing and control with two A/D and two control lines • PBS 100k, expandable with optional 512k RAM..... **$179.95**

9612 Plus/128 1200 port and second port of 4800–38,400 bps • Most modes/capabilities of the KPC-3 Plus and POCSAG (paging) • Unique design allows the addition of another port, high or low speed • Remote access, sensing and control capability • Telemetry transmission capability **$369.95**

KAM 98 Single port multimode TNC for HF and VHF use • Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, Free signal detection for HF email, A/D inputs/TTL outputs • HC11 for more processing power to accommodate future upgrades • Wider range of speeds; use 1200 bps packet on 10 meters..... **$399.95**



1270C **TAPR TNC-2 Clone** Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and other non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM & 32K RAM. AX.25/Level 2-V2 software. Comes with interface cable, serial port connector and AC adapter. 12 VDC. 9½" x 7½" x1½"..... **$119.95**

1270CT adds 2400 baud modem **$149.95**

1270CQ adds 9600 baud modem..... **$229.95**

2400 2400 baud modem..... **$29.95**

9600B G3RUH compatible 9600 baud modem. Easy installation in MFJ TNCs..... **$99.95**

1278B **Multi-mode Data Controller** 10 modes: PACTOR, 16-level FAX, color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex & memory keyer. Enhanced mailbox • 32K RAM • 16-gray level modem • 20 LED tune indicator • MARS mode • Internal modem header • 10 program message buffers • Dual radio ports • KISS interface • Host mode • Threshold control • RS-232/TTL ports • 12 VDC • 9½"w x 9½"d x1½"h..... **$279.95**

1278B/DSP The 1278B w/DSP filter..... **$359.95**

1278BT Same as MFJ-1278B except Turbo version, includes a 2400 baud modem **$309.95**

780 **DSP Board** Plug-in "brick wall" DSP data filter for MFJ-1278B **$89.95**

PacComm www.paccomm.com
Packet Radio Systems, Inc.

Pico 128K **Miniature TNC** *(bottom right)* Z-181 high integration MPU with one meg address space • Online help • Personal message system • APRS • Terminal programs for DOS and Windows • Open squelch DCD circuit included • Optional internal GPS receiver and slide-on battery pack. 1"h x 2½"w x 3½"d• Standard model with 128K RAM... **$149.95**

Pico Dual 128K **Dual Serial Port model** Adds hardware clock and second serial port for GPS or weather station to the standard model.... **$199.95**

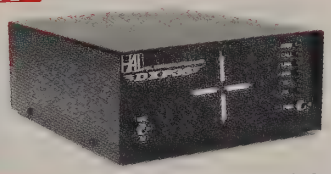
Tiny–2 MK-2 **Multi-Purpose Basic TNC** *(top)* 32K RAM • TNC-2 EPROM compatible WA8DED host mode • KISS mode for satellite and TCP/IP Telemetry via RS-232 or TTL port • Disconnect header • Packet communication for a weather node • 45ma. draw • 5"h x 7"d 1⅜"h **$149.95**

Tiny–2MK-2/GPS **Tracker** Same as the Tiny-II with a built-in GPS unit. Supplied with a small magnetic-mount Trimble GPS antenna **$499.95**

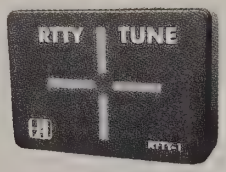
Spirit-2 **High Performance Packet Controller** *(bottom left)* Configures by setting jumpers and installing optional logic devices **$239.95**

HandiPacket **Packet controller** For portable or mobile operation • Loaded with features • Built-in 10-hour battery pack • 1¼"h x 2½"w x 4"d **$229.95**

HAL COMMUNICATIONS CORP.
www.halcomm.com

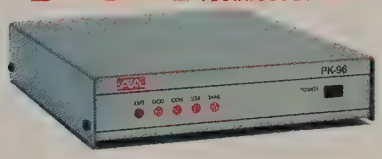


DXP-38 **Multimode HF Modem** Stand-alone DSP modem providing excellent performance on RTTY, CLOVER, ASCII, AMTOR and P-Mode. Both DOS and Windows (95, 98 and NT 4.0) software are provided at no added cost. Uses the same serial I/O commands as, and will operate with any third-party software written for the DSP-4100. 12V DC @ 0.6A. 3" x 7⅛" x 10"w. One-year warranty. **$395.95**



RTTY-1 **Tuning Indicator** Easy to use and very accurate. Works with virtually any FSK radio modem. The crossed LED bars show correct tuning for all popular FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode, HF Packet Radio. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5"w x 3.75"h x 1.25"d, 0.5 lb. Requires +9V-18V DC @ 160 ma **$99.95**

AEA TIMEWAVE TECHNOLOGY INC.



PK-12 1200 bps VHF/UHF TNC 1200 bps, VHF Packet-ready • Gateway as a node • PC PakRatt Lite™ control software included • APRS™ software included • APRS adapter cable available • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom • GPS firmware and commands • Stand alone tracking • External TX adjust. • Perfect for base station, loaded w/features for mobile • Ext. 12V DC, or 9V batt. • 5¾"w x 5¼"d x 1⅜"h, 12 oz.... **$129.95**

PK-96/100K 9600/1200 packet TNC 9600 and 1200 bps packet-ready • GPS firmware standard • Remotely program • GPS commands • Stand-alone tracking hardware HDLC for accuracy • True DCD to hear weak signals • Gateway as a node • TheNet X-1J node firmware option available • Full MailDrop facility • PC PackRatt Lite™ terminal control software and APRS™ software included • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom• Separate external TX for 9600/1200 bps adjustments • External reset • Windows™ and MacIntosh™ program available • Requires 12V DC • 6¼"w x 7½"d x 1⅜"h, 1¼ lbs. 128K RAM .. **$169.95**

We accept I.M.P.A.C.® Government Credit Cards

KOSS stereophones

SP/5 Sidefiring Portable Stereophone in Sport Yellow Frequency Response: 40-20,000Hz • Straight, dual entry, 4' cord w/3.5mm plug • Sensitivity: 92dB SPL/1mW • Imped: 32Ω • 0.46 oz..... **$7.99**

HP/6 Portable Stereophone Frequency Response: 30-16,000Hz • Dynamic element for full sound • Foam ear cushions for open, hear-through sound • Durable headband adjusts for best fit • Volume control on cord for easy level adjustment • Straight, single entry, 4' cord with 3.5mm plug • Sensitivity: 91dB SPL/1mW • Impedance: 32Ω • 2.5 oz..... **$9.99**

KTX/4 Lightweight, Portable Stereophone Frequency Response: 40-20,000Hz • Collapsible design for easy storage and portability • Straight, dual entry, 4' cord with 3.5/6.4mm stereo plug • Volume control on the cord for easy level adjustment • Sensitivity: 95dB SPL/1mW • Impedance: 32Ω • 2 oz. **$14.99**

SW/5 Dynamic Microphone Headphone Single-sided, mono headphone with dynamic microphone for hands-free communications • Frequency Response: 60-20,000Hz • Microphone Impedance: 600Ω • Headphone Impedance: 32 Ω • Adjustable headband • Foam ear cushion for open, hear-through sound • Straight, single entry, 4' cord with 3.5/6.4mm plug Sensitivity: 91dB SPL/1mW • 1.5 oz **$14.99**

SB/30 Dynamic Microphone Stereophone Stereophone with 600Ω microphone for hands-free communications • Closed, leatherette ear cushion for maximum isolation and deep bass • Frequency Response: 40-20,000Hz • Adjustable, padded headband for comfort during extended wearing periods • Straight, dual entry, 8' cord with 3.5/6.4mm Sensitivity: 100dB SPL/1mW stereo phone • Impedance: 100Ω • 9.0 oz **$49.99**

QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch Frequency Response: 40-20,000Hz • Coiled, single entry, eight foot cord with 3.5mm/6.4mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

QZ/2000 Noise Reduction Stereophone Revolutionary Active Noise Reduction (ANR) stereophone system reduces harmful/annoying low frequency sounds in noisy environments • >15dB SPL from 40-200Hz; average of 10dB SPL from 30-1000Hz • Frequency Response: 15-20,000Hz • Straight, dual entry, 4' cord • Includes compact control case and collapsible stereophone for convenient travel/portability • Adjustable headband • Includes input jack for audio play-through and 2-prong adapter for in-flight use • Sensitivity: 101dB SPL/1mW • Impedance: 5kΩ • Uses 2 "AA" batteries (incl.) • 2.3 oz..... **$179.95**

SHURE®

526T Series II SUPER PUNCH® Transistorized Base Station Microphone Adjustable height, dynamic mic with built-in preamp and output level control. Designed to replace ceramic/dynamic, high/low impedance mics originally supplied with most equipment. 200-6,000Hz frequency response provides optimum intelligibility. Comes with 6-wire cable and triple pole double-throw locking PTT for wide range of mic to transceiver connection. Includes 9V battery..... **$119.95**

We accept I.M.P.A.C.® Government Credit Cards

KENWOOD

HS-5 Deluxe Headphones Specifically designed for use with communication systems. It provides natural sound and eliminates uncomfortable pressure feeling which permits long hours of fatigue free listening. To increase the volume level or when you are using the headphones in a noisy room or want privacy, replace the ear-pads with the vinyl leather ones. These are pressure-fit type ear-pads and will increase the sound pressure by about 10dB while sealing out noise. Both types are included. Includes 6 feet connecting cord with plug. Impedance: 8Ω • Maximum input: 200mW @ 1000 Hz) • Frequency Response: 150-4000kHz (-6dB) • Approx. 350g **$79.95**

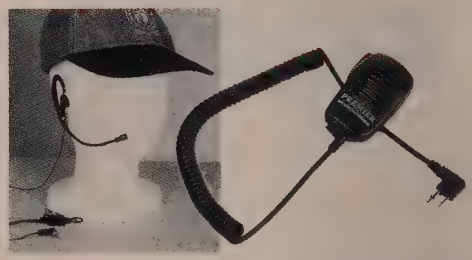
ASTATIC

10DA-L High-Z dynamic SSB microphone head. Controlled 300–3000Hz response provides high attenuation of the unwanted sideband and better copy through interference. 2⅞"w x 1⅛"h x ⅞"d, 17 oz. Black. Uses T-UG9 stand, below..... **$69.99**

D-104L The original *"super talk power"* microphone head. High output and 300-7500Hz response with rising characteristics between 500 and 4000Hz, provides maximum intelligibility. Shock proof cartridge with high-Z crystal element, metal sealed for protection. Solid machined brass parts, heavy mesh grille, all chrome plated. 3" diameter x 1⅛"d, 14 oz. Uses the T-UG9 stand, below..... **$42.99**

T-UG9 Accepts D-104L and 10DA-L microphone heads. Built-in adjustable preamp with output impedance, matches most transmitters. Side switch bar for PTT with slide-up locking clamp. 8½"h without head, 5½" dia. base. Chrome and grey, 6-wire coiled cable. Uses 9 volt battery **$52.95**

PREMIER communications



SPM-100 Speaker Microphone *(right)* Full-sized electret speaker microphone. Convenient revolving lapel clip. For ADI, Alinco, Icom and Yaesu **$21.95**

SPM-101 Same as above. For Kenwood.... **$21.95**

SPM-400 Boom Mic *(left)* Light-weight boom mic/earpiece combo, PTT clip for belt or lapel. For ADI, Alinco, Icom and Yaesu..... **$25.95**

SPM-500 Throat Microphone *(not pictured)* Picks up vocal vibrations directly from your neck. The perfect choice for high noise environments. Uses either a lapel or "fingertip" PTT. For ADI, Alinco, Icom and Yaesu..... **$37.95**

SPM-200 Lapel Microphone *(right)* Clips to your collar or lapel. With an earbud..... **$16.95**

SPM-200E Same as above except with earhook instead of earbud..... **$21.95**

EH-1 Deluxe Earphone with Earhook *(left)* Super comfortable earphone with rubber covered earhook • Compatible with most radios • Low profile! Flesh-colored, coiled cord..... **$14.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ ENTERPRISES, INC.

HEADSET MICS

288 Deluxe Headset Microphone™ *(left)* Lightweight, comfortable. Superb transmit audio – picks up your voice even at a whisper. Superb earphone tonal quality and intelligibility. The foam covered microphone element is attached to the headset with a flexible rubber extension which allows proper positioning of the microphone. The small PTT switch can be held or conveniently attached to your clothing. 6' of cord from headset to plug. **288I** works with ICOM; older Yaesu, Standard, ADI, Radio Shack and compatibles. **288K** works with Kenwood and compatibles. **288Y** works with Yaesu FT-10, 50 and VX transceivers.....ea. **$24.95**

292 Featherweight™ Earphone/Mic *(right)* An ear-plug earphone that fits comfortably in your ear. Tiny thumb size mic w/push-to-talk switch with lapel/pocket clip built into cord. High quality dynamic earphone & electret mic gives your hand-held crystal clear audio on receive and transmit. 4' cord. **292I** works with Icom, Yaesu, Alinco, Standard, ADI and compatibles. **292K** for Kenwood and compatibles. **292Y** works with Yaesu FT-10R, FT-40R, FT-50R and VX transceivers .....ea. **$17.95**

HEADPHONES

396 Professional Grade Boom Micro/Headphone *(left)* Designed for contesting, DXing and traffic nets. Features a *total comfort* design with superb 3/4" thick padding on each ear and headband. Super lightweight! – you won't even know they're there. Adjustable headband gives a perfect fit, keeps out noise. Enhanced headphone frequency response brings out speech fidelity, signals never sounded so clear. Flexible microphone boom lets you position the microphone comfortably at an optimum distance to minimize sibilant sounds. Tailored frequency response microphone element helps bust through noise and QRM. Long, 9 ft. cable with standard 1/4 inch jack for headphones and 3.5mm jack for microphone. Mic adapters: order 5396 Y/K/I ($15.95 each)..... **$79.95**

392 Communications Headphones *(right)* Perfect for amateur radio and shortwave listening, great for all modes. Superb padded headband and ear cushioned design plus lightweight (8oz). High-performance driver units with 100Hz-24,000Hz freq. response provide enhanced communication sound and outstanding speech fidelity. Each earphone has individual volume and bass controls. Comes with gold-plated plug and 9 foot cord. *Power handling :* 450 mW *Impedance:* 16Ω at 1KHz *Sensitivity:* 102 dB/mW. Works in mono or stereo mode. Includes free 1/4" adapter..... **$19.95**

MICROPHONE

2981 VOX Speaker/ Mic In VOX position, just talk & the mic electronic circuitry automatically keys the HT. Red LED indicates when VOX is enabled. Designed to pick up your voice, not background sound. Two condenser mics used for feedback prevention. Adjustable sensitivity for any voice and VOX "ON/OFF" switch allows use as a regular PTT speaker/mic. Includes external earphone which can be plugged into the earphone jack for private monitoring, a 360° rotating lapel clip and 54" of stretchable, coiled cord with 2-prong plug. Compatible with most Icom, Yaesu, Standard, Radio Shack, Alinco and ADI handhelds with 2-prong plug-ins..... **$39.95**

Once Again

THE ASSOCIATES®

AES is bringing you instant approval on a revolving credit basis. Apply in person only.

Benefits:

- Quick Approvals
- No Down Payment or Annual Fee
- Open Line of Credit for Future Purchase
- Makes Budgeting Easier

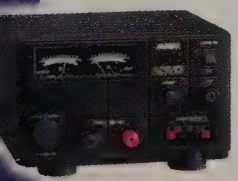
ALINCO 2000 – AMATEUR RADIO AND MORE!

For reliable station power, come to the experts!

DM-330MVT Communications Grade Switching Power Supply

NEW!

Tiny, powerful, 30A continuous, 32A peak output, weighs less than 5 lbs! Variable output 5 ~ 15 VDC, memory output, rear panel high-current (30A) terminals, triple circuit protection, illuminated V/A meter, ultra-quiet with patent-pending noise-shift circuit. Front panel cigar (10A) and quick-connect (5A) terminals, ripple less than 15mV p-p. Perfect for travel, station or test bench use. There's no switching supply like it!



DM-340MVT IC Regulated Power Supply

30A nominal, 35A peak output. Variable output 0 ~ 15 VDC, convenient front-panel connections includes high-current terminals, cigar lighter (10A) and quick-connect (5A). Built-in circuit protection, convenient front-panel fuse. Reliable performer, proven design.

ANTENNA TUNERS

EDX-1 (not pictured) Manual Antenna Tuner.

Works with any HF radio up to 150 w output, illuminated Power/SWR meter, accepts PL-259 connector.

EDX-2 Automatic Wire Antenna Tuner

Tunes random length wires from 9 to 80 feet. Compatible with DX-70 and DX-77 HF radios. Made for outdoor mounting, use at home, mobile or portable. Outputs to antenna wire (no coax output).

DJ-X10T Multimode Wide Range Receiver

100 KHz ~ 2 GHz (cellular blocked), 1200 memories, alpha numeric display, Channel Scope™ receives WFM, NFM, USB, LSB, AM and CW. Internal HELP function, much more! (DJ X10K export version available)

DJ-S46 UHF Family Radio Service Transceiver

No license required! 14 channels, FM clarity, Ni-Cd battery and charger, also operates on AA cells. Optional speaker mics and external power adapter available too! Shares accessories with DJ-S11 and DJ-S41.

Simple ▪ Clean ▪ Dependable

ALINCO

AMATEUR RADIO'S VALUE LEADER℠

U.S.A. Alinco Branch: 438 Amapola Ave. • Suite 130 • Torrance, CA 90501
Phone: (310) 618-8616 • Fax: (310) 618-8758 • Internet: http: //www.alinco.com

Specifications subject to change without notice or obligation

GOLDLINE
Full Range Dual Element Microphone

A dual element microphone specifically for Full-Range, Smooth Articulate SSB audio with a Wide Audio Response. The wide response makes it really great for FM and AM, too.

The GOLDLINE element has a wide (60Hz to 16kHz) frequency response coupled with a 6dB midrange peak @ 2kHz which gives it excellent voice articulation, which is important for clear, understandable SSB audio. At the same time, it produces a well-balanced, robust, "big bottom" low end.

When the pile-up or conditions get tough, and you need some extra punch, you can conveniently switch in an alternate element for an engineered response that provides Maximum Speech Power. The GOLDLINE comes equipped with the new Full-Range element, plus your choice of the HC-4 DX Dream Machine element or HC-5 Full Range Articulation element, described below.

The PTT features the new "Soft Touch" recessed microswitch for smooth, noise free operation. Requires CC-1 cable, below.

GM-4 GOLDLINE with Wide Response & HC-4 elements.. **$139.99**
GM-5 GOLDLINE with Wide Response & HC-5 elements... **$139.99**
GM-V "VINTAGE" GOLDLINE, has a built-in matching transformer for high-Z inputs on those those old boat anchors..... **$159.95**

HM-10/HM-10 Dual
Hand-held Studio-style Microphones

Old favorites upgraded with a new body and switch like the GOLDLINE. The **HM-10** comes with your choice of the HC-5 Full Range Articulation or HC-4 DX Dream Machine element.

The **HM-10 Dual** contains both the HC-5 Full Range Articulation element and HC-4 DX Dream Machine cartridges, switch selectable for normal or tough conditions. Both require the CC-1 cable.

HM-10 with HC-4 or HC-5 – **$64.99** • **HM-10 DUAL** – **$114.99**

CC-1 Cables For GOLDLINE or HM-10's. 6-1/2 ft. long with connectors to match ICOM, KENWOOD, TEN-TEC or YAESU radios. Also wired with a 1/4 inch PTT jack to accommodate a plug from the FS-1 Footswitch or HS-1 Hand Switch. Specify Radio ..... each **$29.99**

PRO-SET & PRO-MICRO
Boomset Headphones

PRO-SET Boomset A rugged, lightweight boomset designed for performance and comfort during contests when wearing time is usually extended. The padded, fully adjustable headband provides maximum comfort. Heavily padded vinyl earpads seal out noise, and are removable for washing. The flexible microphone boom is adjustable to your liking and folds up for convenient storage or transport. Has a single cable wired with 1/4" stereo plug and 1/8" (3.5mm) transmit audio plug. Requires AD-1 adapter cable.

Order with HC-4 DX Dream Machine or HC-5 Full Range Articulation element.. **$130.95**

PRO-MICRO Boomset A miniature version of the PRO-SET. It's smaller and lighter weight and does not cover the entire ear which allows you to monitor your surroundings. Requires AD-1 adapter cable.

Order with HC-4 DX Dream Machine or HC-5 Full Range Articulation element.. **$110.95**

PRO-5 Boomset If you are concerned about covering both ears and want to monitor your surroundings, the PRO-5 with its single ear phone will meet that requirement. It was created with all of the quality and performance as the PRO-SET boomset without covering the right ear. Requires AD-1 adapter cable.

Order with HC-4 DX Dream Machine or HC-5 Full Range Articulation element **$120.95**

AD-1 Adapter cables for using PRO-SET PRO-5 or PRO-MICRO with ICOM, KENWOOD, TEN-TEC or YAESU radios. Has 1/8 inch (3.5mm) audio jack and 1/4 inch plug for FS-1 or HS-1 PTT switches.... ea. **$16.99**

HS-1 Handswitch PTT control with 7 ft. cable and 1/4" phone plug **$24.99**

FS-1 Footswitch PTT control with non-skid pads, 7 ft. cable and 1/4" phone plug. **$29.99**

Base, Boom/Clamp Assemblies for HM-10's and GOLDLINE

LX-1 Professional Studio Boom (A) Reaches 41 inches without external springs. Balanced for 1 pound microphone.... **$94.99**

SB-1 (B) Extends from 9-1/2 to 16 inches. Posi-Lok clutch system with 52 locking teeth and "C" clamp mount keeps the microphone in place under any conditions **$32.99**

TB-1 Table Base Mount (C) For HM-10's or GOLDLINE series microphones. Heavy (2 lb., 10 oz) cast metal base with non-skid cork feet, 6 inches high - stays put! **$24.99**

MA-1 Boom (D) Adjustable from 6 to 24 inches and attaches to desk or shelf, or hangs from ceiling. Swivels a full 360° to place microphone right where you want it. You can use the FS-1 Footswitch or HS-1 Handswitch for PTT operation.....**$44.99**

SM-1 Shock Mount (E) Mounts on any boom and isolates microphone to reduce vibration/noise pick-up..... **$49.99**

HEIL MICROPHONE CARTRIDGES

If you aren't satisfied with the *"sound of your station,"* or need better audio performance, you can solve this problem by replacing the cartridge in your microphone with a *Heil Key Element* for a dramatic improvement. It's tiny in size, and easily replaces existing cartridges in most microphones.

HC-5 – Full Range Articulation

The replacement microphone cartridge that eliminate the mushy, bassy, paging-type audio produced by most factory supplied microphones. It makes any rig sound better and more intelligible by providing full articulation and improved clarity. Response: 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. Very clear, easy-to-understand SSB audio for everyday communications that will get you lots of complements. Cardoid pattern.

Z: 2000Ω, works with low to medium–Z inputs. Size: 0.530"d x 0.850"w x 0.310"h..... **$29.99**

HC-4 – The DX Dream Machine

The replacement microphone cartridge for HF contest, DX and weak-signal VHF/UHF work. Produces outstanding results on aurora, backscatter, etc. Engineered to produce a high-pitched, pile-up busting 500–3800Hz response with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. The super clarity with more punch is just the ticket for making difficult contacts. A penetrating sound, not particularly pleasing for everyday strong signal work, but otherwise – WOW!

Z: 2000Ω, works with low to medium–Z inputs. Size: 0.530"d x 0.850"w x 0.310"h..... **$29.99**

Tip: Install both the HC-4 & HC-5 and switch 'em like on the HM-10 DUAL!

Other HEIL Accessories

HMP In-Line FET Microphone Preamplifier For older ICOM rigs: IC-745, 751, 781, etc. that lack enough gain to accommodate Heil microphones. The HMP produces +8dB of overall gain which gives plenty of audio. Usually not necessary for late model ICOM. The 6 inch cable with 8-pin connector plugs in to the ICOM microphone input. The other end accepts the Heil CC-1 or AD-1 adapter. Operating voltage and PTT lines are derived from the ICOM mic input. The HMP-M has a modular plug for those radios with modular connector..... **HMP** or **HMP-M** **$54.99**

AD-100 Microphone/Boomset Adapter Allows use of all Heil products with the YAESU FT-100. Solves the problem of multiplexed microphone, touch tone audio and control data appearing on the microphone line **$24.99**

HD-AT Headphone adapt./6bd attenu. (1/8"–1/4") .**$5.95**

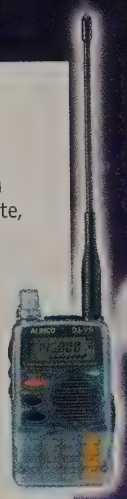
XT-1 Matching Transformer A sub-miniature audio transformer for matching Low–Z microphones to High–Z inputs as found in older Collins, Drake, Hallicrafters, etc. **$15.95**

ALINCO 2000

Now you have more reason than ever to rely on Alinco for high quality, affordable prices, exciting new products and proven performers. Alinco's Toyama facility has **ISO 9002** certification. No wonder Alinco is Amateur Radio's Value Leader™!

DJ-V5TH 2m/440 HT* NEW!

NEW! Extended Rx from 76 ~ 999 MHz‡ includes wide band FM, alphanumeric display, 200 Memories, CTCSS encode+decode, 5 watts output, compact size, 4 scan modes, 5 scan banks, cross-band operation for satellite, auto-dialer, 13.8 VDC direct input and more!



DJ-V5TDC(H) 2m/440 HT NEW!

NEW! See-through version includes all the same great features of DJ-V5TH in a clear ice blue case that reveals the placement of the circuit board, display, lighting, speaker, keypad, switches and more. DJ-V5TDC is powered by a see-through dry-cell pack while the DJ-V5TDCH comes with a black NiCd battery pack and charger.

DJ-195T 2m HT NEW!

NEW! Alphanumeric display, 40 memories, CTCSS encode+decode, DCS, auto-dialer, burglar alarm, 13.8 VDC direct input, experimental mosquito repel tone! Comes with 5W battery!

DJ-180TH (144 MHz)*, DJ-280TH (222 MHz)*, DJ-480T (440 MHz)

Proven performers, super value! 10 memories expandable to 50 or 200, illuminated display, CTCSS encode+decode.

DJ-C5T 2m/440 "Credit Card" HT

"Credit Card" size, internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, 600 mAh lithium-ion battery, desk charger included!

DJ-S11T (144 MHz) HT
DJ-S41T (440 MHz) HT

"Pager size", 21 memories, easy to operate and program, great TX and RX audio, self-storing pivot antenna, uses AA batteries, 340 mw output, fits in pocket or purse. Amazing low price!

DJ-G5TH 2m+440 HT*

Our most popular dual-bander, up to 5 watts output, Channel Scope™ display, 100 memories/band, CTCSS encode+decode, AM airband RX, programmable second PTT, full duplex and crossband repeater capabilities, 13.8 VDC direct input, illuminated keys and display, RF attenuator and more!

***Optional 2 watt batteries available.**

DR-M03SX (10m/10 watts)
DR-M06TH (6m/20 watts)
DR-430TQ (440 MHz/35 watts)
FM Mobile/Base

Local and DX FM communications can be yours! Great for simplex or repeater operations, includes CTCSS encode (decode optional), 100 memories. (DR-430–20 memories; CTCSS decode included)

DR-135 2m FM Mobile/Base** NEW!

NEW! 2 meter TX/RX + Airband (AM) RX. Ignition key power control, theft alarm, narrow band mode complies with new MARS/CAP regulations. 7 place alphanumeric display, front panel data input, **optional internal packet module can be used with APRS™**, 9600 packet mode, rear panel serial port connection. 5/10/50 watt power settings, 100 memories, 10 autodial memories, CTCSS and DCS encode/decode, backlit mic, and more! **Available in black or pewter.**

DR-150TQ (CTCSS decode)
2m FM Mobile/Base

Channel Scope™ display, 50 watts, 100 memories, airband + 440 ~ 450 MHz RX, 2 VFOs, auto-dialer, 9600 packet port, CTCSS. For demanding 2m FM operators. Direct frequency entry from keypad.

DR-605TQ (CTCSS decode)
2m/440 Mobile/Base

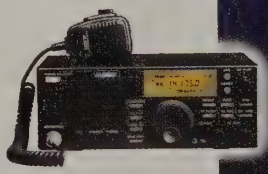
Value Leader! 50 watts VHF/ 35 watts UHF, 51 memories/band, 430 ~ 449.995 MHz range allows for satellite work, internal duplexer, 9600 packet port. Check the super low price! Dual band, dual RX.

DR-610TQ (CTCSS decode)
2m/440 Mobile/Base

50 watts VHF/35 watts UHF, Channel Scope™ Display, 120 memories, detachable face, 2 VFOs, AM airband RX, V/U, V/V, U/U, U/V operation, RF attenuator, CTCSS, more! Direct frequency entry from keypad. Crossband repeat and control.

DX-70TH (100w) HF+6m
Mobile/Base/Portable

160 ~ 6m Amateur band TX in all modes, general coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz. 2 VFOs, 100 memories, removable face, speech compressor, SSB, CW and AM narrow filters, full, semi or automatic break-in, multi-function control, and MUCH more! Ask about optional EDX-1 or EDX-2 antenna tuners.



DX-77T HF Base/Portable

Clean, crisp RF modulation, easy to operate! Low noise floor from DDS. 160 ~ 10m Amateur band TX in all modes. 500 KHz ~ 30 MHz general coverage RX, 2 VFOs, internal keyer (6 ~ 50 wpm), 100 memories, 13.8 VDC input, speech compressor, front-mounted speaker, RIT, easy split operation, compatible with EDX-1 or EDX-2 antenna tuners.

Simple ▪ Clean ▪ Dependable

ALINCO

AMATEUR RADIO'S VALUE LEADER℠

U.S.A. Alinco Branch: 438 Amapola Ave. • Suite 130 • Torrance, CA 90501
Phone: (310) 618-8616 • Fax: (310) 618-8758 • Internet: http: //www.alinco.com

‡cellular blocked. Specifications subject to change without notice or obligation. Performance specifications apply only to Amateur bands. Permit required for MARS/CAP use. Products intended for use only by properly licensed Amateur Radio operators. **The FCC has not yet approved this radio. It may not be offered for sale or lease until the approval of the FCC has been obtained.

Out of the Darkness . . . ADI

"The Best Value in Amateur Radio"

Tired of Two Meters? Busy, overcrowded channels got you down? Well, the most underpopulated piece of ham radio "real estate" is just a new piece of equipment away. The 1.35 Meter (222 MHz) ham band has all of the best benefits of both the Two Meter and 440 MHz bands, including great range in and around buildings, but, without the overcrowding suffered by those "other" bands.

Think that it's too expensive to get active on 222 MHz? Think again. The new ADI AR-247 mobile radio and PRYME PR-222 handheld are available now, for about the same price you're used to paying for quality VHF and UHF gear. Now, 222 MHz is within affordable reach for all amateur radio operators. Both radios are modern designs with all the features that you'd expect, including direct frequency entry, lots of memory channels , compact and rugged chassis design, and CTCSS encode / decode. The AR-247 even features DCS (Digital Coded Squelch) for use with amateur repeater systems of years to come.

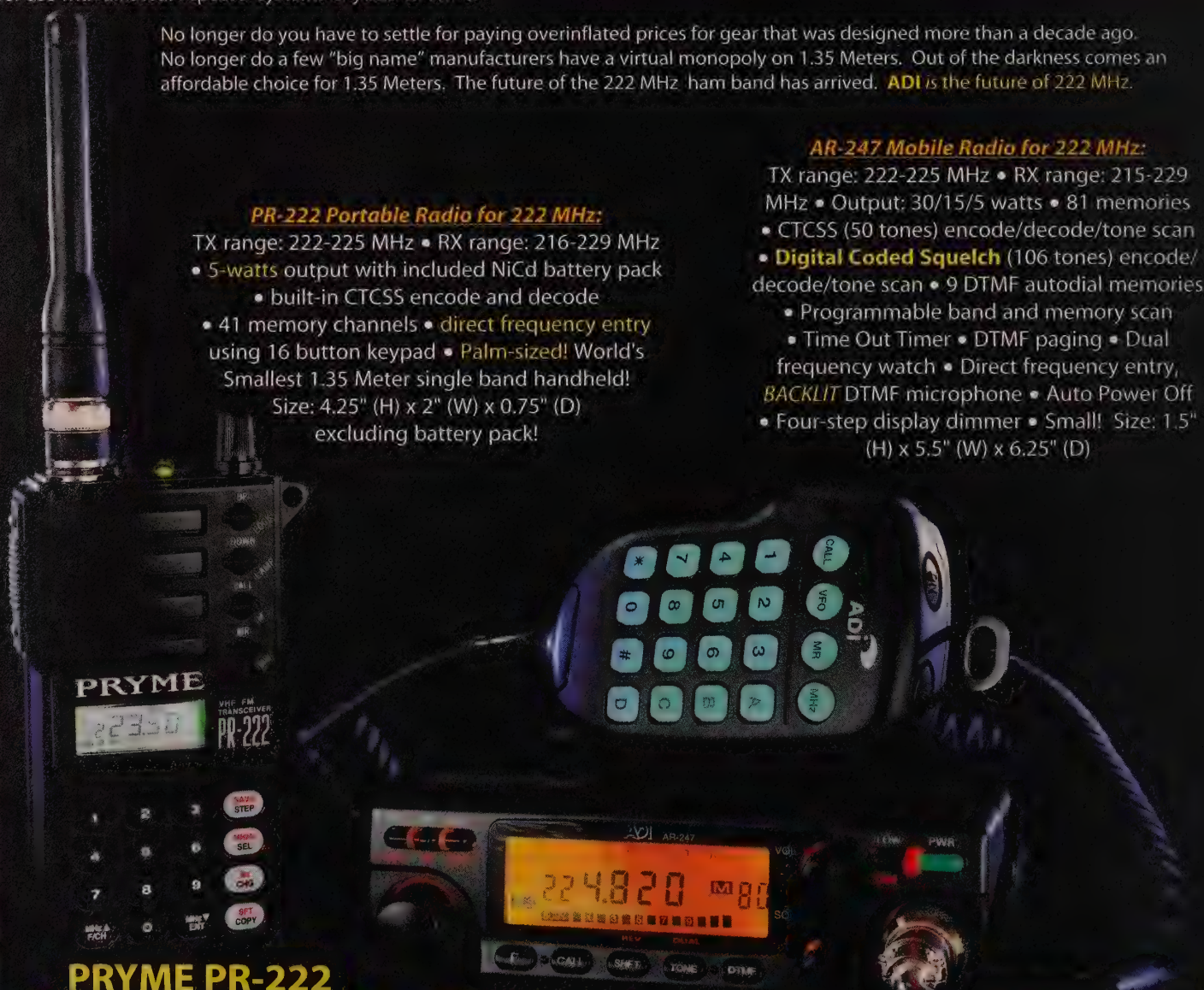
No longer do you have to settle for paying overinflated prices for gear that was designed more than a decade ago. No longer do a few "big name" manufacturers have a virtual monopoly on 1.35 Meters. Out of the darkness comes an affordable choice for 1.35 Meters. The future of the 222 MHz ham band has arrived. **ADI** *is the future of 222 MHz.*

PR-222 Portable Radio for 222 MHz:

TX range: 222-225 MHz • RX range: 216-229 MHz • 5-watts output with included NiCd battery pack • built-in CTCSS encode and decode • 41 memory channels • direct frequency entry using 16 button keypad • Palm-sized! World's Smallest 1.35 Meter single band handheld! Size: 4.25" (H) x 2" (W) x 0.75" (D) excluding battery pack!

AR-247 Mobile Radio for 222 MHz:

TX range: 222-225 MHz • RX range: 215-229 MHz • Output: 30/15/5 watts • 81 memories • CTCSS (50 tones) encode/decode/tone scan • **Digital Coded Squelch** (106 tones) encode/decode/tone scan • 9 DTMF autodial memories • Programmable band and memory scan • Time Out Timer • DTMF paging • Dual frequency watch • Direct frequency entry, *BACKLIT* DTMF microphone • Auto Power Off • Four-step display dimmer • Small! Size: 1.5" (H) x 5.5" (W) x 6.25" (D)



PRYME PR-222
222 MHz Handheld

***NEW!* ADI AR-247**
222 MHz Mobile

PRYME
Radio Products

by **PREMIER Communications Corp.**
480 Apollo St. #E • Brea, CA 92821
Phone: 714-257-0300 • **Fax:** 714-257-0600
E-mail: premier@adi-radio.com

*Win **FREE ADI** equipment on the web at* **www.adi-radio.com***!*

. . . Into the Light! ADI

"The Best Value in Amateur Radio"

Finally, a dual band handheld that is powerful, loaded with features, *AND* easy to use!

Our ADI AT-600HP has a large dot matrix display, which *QST* magazine called "...the best we've seen in awhile," and a full-sized keypad, the largest keypad of any dual band HT on the market today. For night time operation, the AT-600HP features bright green back lighting on both the LCD display and the entire 16-digit DTMF keypad, making operation even in the darkest environments a snap. The AT-600 even programs intuitively. Even the reviewers at *QST* commented that they "were able to execute most basic functions without cracking the manual." (**Source:** March '98 *QST*) The AT-600HP is simply the most user friendly HT on the market today!

HAM RADIO'S FIRST "PLUG AND PLAY" HT

The ADI AT-600 comes pre-programmed with over 100 channels including popular ham radio repeater pairs and receive only frequencies including marine, fire, police, aircraft, and business. These frequencies were picked by author and instructor **Gordon West, WB6NOA**, himself! Wherever you live, you should find these frequencies to be quite active! Your AT-600 will "play" right out of the box, without any programming! With 200 memory channels, the AT-600 has plenty of memory for your own local frequencies as well!

AT-600HP Dual Bander 2M / 70CM Handheld

TX range: 144-148, 430-450 MHz • RX range: 108-174 MHz (including AM air band), 400-470 MHz, plus 830-985 MHz (cellular blocked) • MARS and CAP capable (permits are required) • simultaneous VHF/UHF receive • single band, or full duplex operation • cross band repeat • separate volume and squelch controls for each band • six-character alphanumeric display • 200 memories store any offset or tone • CTCSS encode / decode / tone scan • 10 DTMF auto dialer memories • DTMF paging • Auto Power Off • battery save • 5 Watts out with supplied battery (HP version only) • PC programmable • on-the-air cloning • Large backlit keypad and display • Battery voltage meter function • Small! 4.25" (H) x 2" (W) x 1.5" (D) excluding battery pack

ADI AT-600HP Dualband HT

PRYME *Radio Products*

by **PREMIER Communications Corp.**
480 Apollo St. #E • Brea, CA 92821
Phone: 714-257-0300 • **Fax:** 714-257-0600
E-mail: premier@adi-radio.com

Study for your ham radio license on-line at www.hamtest.com!

There's something magical about amateur radio. The fact that you can speak into a little box and communicate with someone else on the other side of town, or even on the other side of the world, with nothing between you and that person but thin air…what an incredible, powerful feeling. It feels like magic. **Work the magic.**

LEGACY

IC-706 SERIES

The most versatile series of compact, multi-band rigs ever made.

IC-706MKIIG *THE BEST LITTLE RIG GETS EVEN BETTER*

PROVEN PERFORMANCE

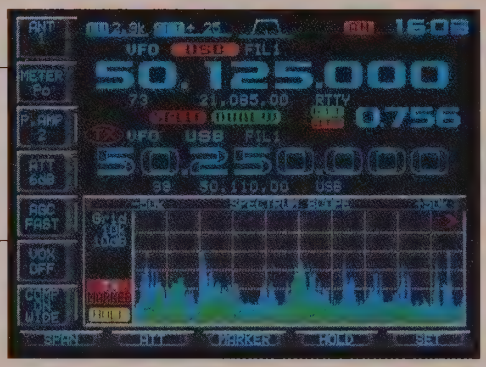
- HF/6M/2M/440MHz
- 100W on HF, 100W on 6M, 50W on 2M, 20W on 440 MHz
- AF-DSP
- Plug and play filters – no soldering required
- Easy-to-navigate menus
- Auto repeater
- CTCSS encode/decode
- Backlit keys

IC-718

IC-746

ICOM

HF



Many operators refer to 6 meters as the "magic band". 6 meters can take you surprising distances – or nowhere at all. While most bands have predictable openings, 6 meters remains aloof and rather mysterious. **Work the magic.**

IC-756PRO (top), IC-775DSP (center), IC-781 (bottom)

NEW ***IC-718*** New to HF, or looking for a capable second rig? Then the new IC-718 is for you. This easy to use rig offers advanced performance at a start-up price • 100W (AM 40W) • All Mode • Big, Well Spaced Keys and Dials • Large Backlit LCD Display • 500 kHz–30.0 MHz General Coverage Receiver • Large, Front Facing Speaker • Direct Frequency / Memory Channel Input Via Front Panel Keypad • Compact Size (great for DX'peditions) • AF-DSP* • PC Programmable*

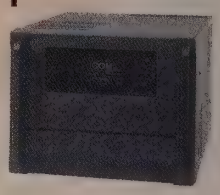
IC-746 HF/6M/2M • 100W • All Mode • Full Duty Cycle • Quad Conversion Receiver • IF-DSP • Front Panel Adjustable NR • Audio Peak Filter • Auto Notch Filter • 3 Optional Filter Positions • Twin Passband Tuning • 4.9" LCD/Dot Matrix Display Shows All Operating Conditions, Metering and Spectrum Scope • CW Memory Keyer • VOX • Auto Antenna Tuner • PC Controllable*

NEW ***IC-756PRO*** This new HF/6M rig pushes digital to new levels! HF/6M • 100W • All Mode • Triple Conversion Rx • Dual Watch • 32 Bit IF-DSP • Front Panel Adjustable NR • Audio Peak Filter • Auto & Manual Notch Filter • Twin Passband Tuning • 5" TFT Color Display Shows Operating Conditions and Spectrum Scope • CW Memory Keyer • VOX • Auto Antenna Tuner • PC Controllable*

IC-775DSP HF • 200W • All Mode • IF-DSP with Noise Reduction, Auto Notch, Audio Peak Filter, Manual Notch and Twin Passband Tuning • Adjustable Noise Blanker • Dual Watch • Adjustable AGC • CW Keyer • Auto Antenna Tuner • VOX • CTCSS Encoder • PC Controllable*

IC-781 The Ham's Ultimate 150W HF Rig • Features all the Bells and Whistles • Built-in Power Supply • All Mode • CRT Display with Band Scope • PC Controllable*

IC-PW1 *Give your desktop station 1kW of power. Remote control head, 100% duty cycle, compact size.*



IC-2800H Audio Excellence and Video Excitement • 2M/440MHz • 3" (d) TFT Color LCD Screen • NTSC External Video Input • WFM & AM (Rx Only), FM • 50W/2M, 35W/70CM • 9600 bps Packet Data Port • V/U, U/V, Dual Band, Cross Band Repeat • Independent Band Controls • Air Band Rx†

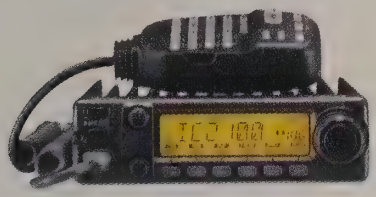
There's something magical about the latest ICOM radios, too. Take, for example, the new IC-756PRO with its awesome, 32-bit DSP processing. The way this rig pulls faint signals out of strong interference is incredible. The technological advances of today's ICOM rigs are like magic. **Work the magic.**

WORK THE MAGIC ICOM

IC-207H Super Compact, Detachable Control Panel* • 2M/440MHz • 2M(45W)/440 MHz(35W) • Work One Band at a Time • Up to 9600 bps Packet* • Air Band RX† • MIL STD 810††

IC-2100H Rugged 2M • 55 Watts • Easy to Use • Full Function Mic • IMD Fighter • MIL SPEC 810†† • Large Green/Amber LCD • Large Keys and Knobs

IC-821H 2M/440MHz • All Mode • REAL Satellite & Digital Performance with Continuous Adjustable TX Power • Sub Band TX, Independent Rx • 9600 bps Packet Data Port • Noise Blanker & IF Shift on Main/Sub • Satellite Tracking with Doppler Correction • Compact Size



IC-W32A 2M/440MHz • 5W@9.6VDC • Easy to Use • 200 Memories • Alphanumeric Display & Paging • V/V, V/U, U/V, U/U • Backlit Keypad • Wide Rx†

IC-T7H 2M/70CM • Easy to Use • Up to 6 Watts • Air Band Rx† • Pocket Beep • Auto Repeater • Work One Band at a Time

IC-Q7A 2M/70cm • Mini Size • Big Audio • 30 to 1300 MHz Rx† (Cell Blocked) • Advanced Scanning • Includes "AA" Ni-Cds, Charger • Work One Band at a Time

IC-T22A 2M • Easy to Use • Alphanumeric Display • Wide Rx, Air Band† • 5W@13.5VDC* • 3W@9.6VDC Standard

IC-T2H 2M • Super Rugged • 6W@9.6VDC • 500 mW Audio • 8 Front Panel/PC Programmable* Keys • 2 "AA" Ni-Cds and Wall Charger Included

IC-T81A World's First QUAD Band HT • Easy to Use • 6M/2M/440MHz/1.2GHz • Wide Band Rx† • 5W@13.5VDC*, 1W/1.2 GHz • Ni-Mh Battery • Auto Repeater • Water Resistant • Compact Size

IC-T8A Easy to Use, Compact 6M/2M/440MHz Tri Bander • Wide Rx† • 5W@13.5VDC* • Ni-Mh Battery • Auto Repeater • Water Resistant

ICOM®

WORK THE MAGIC ICOM

Most ICOM rigs are PC programmable with select ICOM options

PC Ready!

ALL MIL SPEC† HTs

IC-T81A's MIL SPEC test is pending

IC-T2H IC-T22A IC-Q7A IC-T7H IC-W32A IC-T8A IC-T81A

*Optional equipment required. †Reception guaranteed on US ham bands only. ††MIL STD 810 C/D/E for shock/vibration. ©2000 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004 • 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. Questions? Contact AES or contact ICOM America Tech Support on CompuServe's® HamNet forum at 75540,525 or send e-mail to 75540.525@compuserve.com. CompuServe is a registered trademark of CompuServe, Inc. AESSPREAD200

GET OUT. HAVE FUN.

ICOM MOBILES

Plenty of Power, PC Programmable, and Ready for FUN!

QST says:
"Those shopping for a wide variety of advanced features in an economically priced 2-meter mobile will find the ICOM IC-2100H worthy of serious consideration."
– QST, 1/99

IC-2100H ▶ 2 meters has never been easier or more fun! 55 watts of power; PC programmable*; 113 memory channels; die cast aluminum chassis; full control mic; CTCSS; highly intermod resistant; and a cool DUAL color display.

GREEN OR AMBER
Select which color you want the display to show. The large alphanumerics and soft key controls are easy to see

ONLY 4.3" WIDE
The IC-207H's super compact remote head boasts a large display with soft key menu controls.*

◀ ***IC-207H*** The ultra-compact remote control* head of this 2 meter/440 MHz dual bander fits on just about any kind of dashboard. Also enjoy: CTCSS encode/decode; up to 9600 bps packet*; built-in duplexer; 182 memory channels; full control mic; auto repeater; and more.

EASY TO INSTALL
IC-2800H comes withtwo mounting brackets– one for the main unit, one for the control head

IC-2800H ▶ Audio excellence, video excitement. 2M/440MHz dual bander with: remote control head; independent tuning & control knobs; cross band repeat; TFT color LCD display; NTSC video input; dual band scope; 9600 bps data port; CTCSS encode/decode; 232 memory channels; PC programmable*; die-cast aluminum chassis; full control mic; and MUCH more.

Gordon West says:
"We are happy to report programming is a snap, and seeing the TFT color display on your dash is no problem during the day, and graphically, tantalizing at night!"
– Amateur Radio Trader, 9/99

PC Ready!

*Optional equipment required. Check with AES for details.

ISO 9001 QUALITY ASSURED FIRM SGS

Get out and have MORE fun. Whatever your 2 meter or 440 MHz needs, ICOM has the rig for you. Call or visit AES today...or check them out on the Web: www.aesham.com

ICOM®
www.icomamerica.com

©2000 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004 • 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. Questions? Contact AES or contact ICOM America Tech Support on CompuServe's® HamNet forum at 75540,525 (e-mail: 75540.525@compuserve.com). CompuServe is a registered trademark of CompuServe, Inc. 3MOBAES200

Quality and Reliability… Inside and Out

KENWOOD
Amateur Radio Products Group

KENWOOD COMMUNICATIONS CORPORATION
AMATEUR RADIO PRODUCTS GROUP
P.O. Box 22745, 2201 E. Dominguez St., Long Beach, CA 90801-5745
Customer Support/Brochures (310) 639-5300 Y2ARD-1974/012100

ISO 9001
JQA-1205
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

INTERNET
Kenwood News & Products
http://www.kenwood.net
Kenwood Bulletins
*ftp://ftp.kenwood.net

TM-D700A DATA COMMUNICATOR 144/440MHz FM Dual Bander

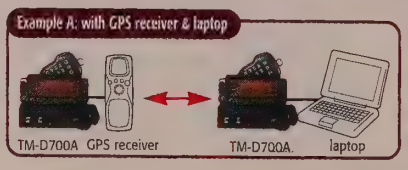
Conspicuous with its extra-large amber & black display, Kenwood's new TM-D700A is fully equipped to make the most of the exciting opportunities offered by the Kenwood Skycommand System, SSTV, GPS and APRS®–the Automatic Packet/Position Reporting System that is rapidly gaining popularity worldwide. This mobile transceiver with built-in TNC offers a wide range of data communications options, including simple packet operation using the AX.25 protocol. You can also send and receive SSTV images using Kenwood's VC-H1. Ham radio is truly entering a new era.

APRS® (Automatic Packet/Position Reporting System)

- **Position/directional data**
  With an NMEA-0183 compatible GPS receiver you can transmit position data for automatic calculation of distance, current speed and heading. Last 4 digits can be masked for position ambiguity. Manual input of latitude/longitude is also possible.
- **Versatile messaging**
  Transmission of position data can be accompanied by a choice of programmable status text (up to 28 characters), position comments (15 settings), icons and bulletins. For added messaging flexibility, individual alpha messages (up to 64 characters) can also be sent.
- **Station list**
  Store received APRS® data in up to 40 station reports.
- **Grid square locator**
  Position data is displayed on the grid square locator for visible reference.
- **BCON TX interval (0.2/0.5/1/2/3/5/10/20/30 min.)**
- **Packet path selection for Digipeat**
- **Weather station & PHG data reception**
- **Digipeat station and DIGI function capability**
- **Auto Message Reply**
- **Audible APRS® message receive (call sign) notification (requires VS-3)**
- **Waypoint position data output**

FEATURES

- Full Dual-band operation: VHF x VHF/VHF x UHF/UHF x UHF
- Wide-band receive: 118~524, 800~1300 MHz (excluding cellular blocked + frequencies)
- Detached panel (extension cable and panel holder supplied) with extra-large (188 x 54 dots) backlit LCD and multifunction key display (reversible)
- Improved key operation announcement with optional VS-3 voice synthesizer
- Built-in 1200/9600bps TNC compliant with AX.25 protocol and KISS mode
- Simplified packet monitoring
- SSTV functions with Fast FM for transmission of images in just 14 secs (approx.) and dual receive for voice and image transmissions (two frequencies simultaneously)
- 200 memory channels with 8-character memory name input
- Up to 10 programmable memory scan banks
- Easy-to-use menu system similar to the TH-D7A
- Built-in DCS (Digital Code Squelch) and CTCSS encode and decode
- CTCSS tone frequency scan
- DCS code scan
- 9600bps PC-based packet communications for chat, BBS
- Kenwood Skycommand System (KSS) II for remote control of fixed HF transceiver (TS-570S/D(G) or TS-870S)
- DX packet cluster monitoring
- Cross-band repeater
- Wireless remote controller
- 1750Hz tone burst
- D-sub 9 pin terminal (for PCs)
- GPS input terminal (NMEA-0183)
- Visual band scope
- Mute function
- Memory control program available via Internet access
- New backlit microphone with alphanumeric message input.



ISO 9001
JQA-1205
Communications Equipment Division
Kenwood Corporation
ISO9001 Certification

KENWOOD
Amateur Radio Products Group

KENWOOD COMMUNICATIONS CORPORATION
AMATEUR RADIO PRODUCTS GROUP
P.O. Box 22745, 2201 East Dominguez Street,
Long Beach, California 90801-5745, U.S.A.
Customer Support/Brochures (310) 639-5300

Y2ARD-1977

INTERNET
Kenwood News & Products
http://www.kenwood.net
Kenwood Bulletins
ftp://ftp.kenwood.net

SG-2020 COMPACT HF SSB/CW TRANSCEIVER

SGC 05-01
$675.95

The ultimate *"take-along"* Portable!

Designed as a small, low power, low cost USB/LSB/CW HF companion for travel, where space is limited, or where only portable power is available.

Small, but fully microprocessor-controlled and loaded with *"Big Rig"* features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market, drawing typically 430mA in receive & less than 3 amps at 20W CW output on transmit.

Transmit power is adjustable from 0-20W PEP output & covers 1.8 to 29.7 MHz (U.S. Ham bands only). An RF speech processor utilizing VOGAD baseband processing & RF clipping provides plenty of DX "talk-power".

The range of the General Coverage Receiver extends all the way from 400kHz to 29.7MHz for exciting wordwide reception of broadcast and shortwave stations. A back lit LCD display shows a 100Hz freq. resolution (10Hz overall res.). There are 20 Simplex or Semi-Duplex memories to store favorite operating frequencies.

Other functions and features include: SPLIT, RIT, XIT and tunable 100 to 2700Hz A.F. Bandpass. Also, a noise blanker, a fully adjustable (5 to 60 WPM) IAMBIC "B" mode keyer and convenient SWR metering and battery voltmeter. Dynamic hand microphone is included. "Smallest" portable rig, only 2.75"h x 5.9"w x 7"d, 4.4 lbs.

SG-231 Smartuner®

SGC 54-17
$529.95

Smart, slim version of the intelligent Smartuner™

• Complete frequency agility with no operator intervention • Continuous coverage of 1 to 60MHz at 100W with almost any antenna • Compact design, fits the most restrictive installations • Weatherproof case allows mounting at antenna feed point for highest efficiency

Uses a microprocessor-controlled pi of L network to match virtually any load to your transceiver; with the SWR always 1:1.5 or better. Tuning solutions are stored in a non-volatile memory for fast (10ms) automatic recall! Operates with any HF or VHF transceiver, 3 to 100W, and requires only 12VDC and RF connections.

SG-237 Series

SGC 54-18

$339.95

SGC 54-20

100W Microprocessor-Controlled HF Antenna Coupler

SGC 54-19

The SG-237 Smartuner series is the world's smallest high performance antenna coupler for marine, aviation, commercial and amateur applications and any antenna type. The product is designed with high density surface mount components on a 4 layer PCB, providing high efficiency, reliability and performance. The standard version is fully waterproof, and the Porta PCB is mounted on a sturdy chassis plate which provides an excellent electrical and RF ground system. Rugged internal construction allows tough operation in any environment. • 54-18 standard version - Smallest finished antenna coupler on the market. • 54-20 Porta with whip (**Special Order**) - Can be handheld! Designed for quick mobile or base set up. • 54-19 PCB version (**Special Order**) - For retrofit or special projects.

• 1.8 to 60 MHz range • Power input range 3 to 100W PEP • Waterproof • Weighs just 2 lbs. (PCB is 1.25 lbs.) • Antenna length: minimum 7 feet - 3.5 to 60 MHz, 23 feet - 1.8 to 60 MHz • Only 9L x 7W x 1.85H inches

SG-230 Smartuner®

200W Microprocessor Controlled Antenna Coupler for HF-SSB, AM, CW & DATA

You can't buy a smarter tuner. An automatic coupler so intelligent it precisely tunes any length antenna – 8 to 80 ft. in the HF band.

The Smartuner® automatically evaluates and switches 64 input & 32 output capacitance combinations, plus 256 inductance combos in a "pi" network.

The amazing result - it automatically selects from over a half-million different ways to ensure a perfect match for your transceiver.

The most intelligent feature is that the Smartuner remembers the chosen frequency and tuning values in less than 10 ms, each time you transmit on that frequency.

1.8–30 mhz range • 3–200 watts input • Tunes to 80 ft. antennas (all types) • Microprocessor controlled • 10ms tuning time • Non-volatile memory • Waterproof • 2"d x 10"w x 12"d

See Price List for selection of options and accessories for SGC Products

No Compromise Communications

MADE IN USA

SGC Inc., SGC Building,13737 S.E. 26th St. Bellevue, WA. 98005
P.O.Box 3526, 98009 **Fax:** 425-746-6384 or 746-7173
Tel: 425-746-6310 or 1-800-259-7331
World Wide Web: www.sgcworld.com

SG-2000 HF SINGLE SIDEBAND GLOBAL RADIO TELEPHONE

FULL FREQUENCY COMMUNICATIONS FOR VOICE AND DATA

Make contact anywhere with the power-packed SG-2000 – a rugged HF transceiver with 1.8 to 30MHz coverage and 150W PEP output. Engineered for simple and efficient operation, the SG-2000 features an alarm generator, upper/lower sideband, true amplitude modulated (AM) receiver and channel scan as standard features.

Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts from around the world. Great for marine – highly stable & rugged.

Exceptional features include 644 factory programmed ITU voice and data frequencies plus 100 field programmable channels. Scan all ITU channels and up to 100 memory channels in adjustable scan speeds and rates. An extra large liquid crystal, wide angle display with adjustable backlighting provides easy viewing day or night.

Optionally, the SG-2000 can be fully computer controlled by any standard RS-232 protocol connector to allow easy flow and management of data communications on RTTY, ARQ (SITOR), FEC, Packet and telegraphy modes. Fast RX/TX switching time ensures easy and secure data transmissions.

The compact front panel of the SG-2000 can also act as the remote head terminal, and up to 8 full function remote heads can be utilized. The remote heads can be mounted flush with the bulkhead so they do not intrude on people space and the high-impact, abrasion and water resistant housing will stand up well in the toughest environments. The optional universal 5-way head mount orients the control head in any direction, for easy operation.

SGC 04-01
$1599.95

- Power Output: 150 watts PEP
- **Transmitter frequency range:** - 1.8 to 30 MHz
- **Receiver frequency range:** 500kHz to 30 MHz
- **Modes:** A3A, A3H, A3J and CW in LSB and USB, true AM in receive mode & data.
- **Channels:** 100 channels field programmable, 644 channels factory programmed ITU and data.
- **Scan Channels:** Up to 100 scan channels programmable in 10 groups
- **Power Requirement:** 13.6 VDC; 0.8A RX – 16A TX (voice)
- **Size:** 4¾"h x 10"w x 15"d • **Weight:** 12 lbs

See Price List for selection of options and accessories for SGC Products

PowerTalk™ Stunning HF-SSB Receive Clarity with SGC DSP

SGC 04-10
$1849.95

With SGC's **PowerTalk™ SG-2000**, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. A true HF-SSB Power Tool!

PowerTalk™ combines the advanced receiver technology of SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). Fast audio *and* visual tuning – a DSP command center with a high performance spinner knob & bright LED indicators.

Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies, programmable memory, large LCD display and 150 watts of power output.

DSP HF Modem with SmartEmailer™

Link to the world! – transmit and receive e-mail via common mode carrier or receive weather bulletins/forecasts anywhere around the globe.

Requires an HF radio with SITOR compatibility, and a laptop computer running a general purpose communications program.

Designed for digital communications or as a free-standing general-purpose processor for embedded applications. Features open hardware/software architecture running DOS and Windows applications. Works with public domain protocols or develop your own custom modem sets for advanced protocol development.

Programmable, field upgradable, easy to use graphical user interface ..... **SGC 56-40 $695.95**

QMS

QUICK MOUNT SYSTEM

for any HF-SSB mobile

- *Low profile*
- *Efficient tuning for improved mobile performance*
- *Use on any vehicle*

Add a QMS to your HF SSB mobile system - an SGC Smartuner along with an efficient whip antenna - for increased radiation and efficiency. The QMS can be installed on any small or large vehicle (sportscar, SUV or sedan) without drilling any holes or damaging the car body. Installation can be permanent or temporary and just takes 15 minutes, using industrial strength straps, buckles and 4 suction cups. Mount the QMS on the vehicle side, trunk, roof or whatever location is convenient. Most QMS systems come with a lightweight mobile antenna (either Model SG-303 or SG-307) which provide a wide frequency range and easy tuning of the Smartuner.

The SG-307 antenna is 7 ft. and the SG-303 antenna is 9 ft. - both are dual resonant whips supplied with mounting hardware. The antennas are two section with an inner core of large stainless steel rod and a layer of fiber composite helically wrapped.

The QMS™ Quick Mount Systems come in the following packages:

55-47 : QMS Quick Mount System with SG-230 antenna coupler, SG-303 9 ft. antenna, strapping elements, 4 suction cups and mounting hardware. (150W 1.6-30MHz)

55-48 : QMS Quick Mount System with SG-235 500W antenna coupler, SG-303 9 ft. antenna, strapping elements, 4 suction cups and mounting hardware. (500W 1.8-30MHz)

55-49 : QMS Quick Mount System with SG-231 antenna coupler, SG-307 7 ft. antenna, strapping elements, 4 suction cups and mounting hardware. (100W 1-60MHz)

55-50 : QMS Quick Mount System with SG-237 antenna coupler (100W 3.5-60MHz) (antenna not provided and any stainless steel whip can be used) **Special Order**

Description of the QMS

Basic Quick Universal Mount system case. Includes strapping elements and 4 suction cups to mount the SGC coupler and antenna on any vehicle. Antenna and coupler are not supplied.

BRAIN POWER

Smart PowerCube

SGC 52-96
$1169.95

Microprocessor Controlled Linear Amplifier for 1.8 to 24 MHz

The SG-500 SmartPowerCube produces tremendous power—nearly as much as a 1000W amplifier, but it requires less than one cubic foot of space.

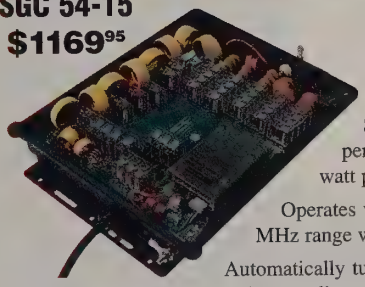
Electronic brain power makes this possible. The SG-500 is an intelligent, microprocessor-controlled high power linear amplifier, designed with high efficiency transistors. Its electronic brain constantly monitors your HF-SSB's activities, power needs, and antenna condition, and automatically—in less than 15 milliseconds—selects the right broadband filter.

Designed to perform reliably and essentially unattended, in the most demanding conditions. For maximum power – intelligent power – at low cost, the Smart Power Cube is just the amplifier for you.

• Covers: 1.8 to 24 MHz • Power Output: SSB: 500W PEP; CW: 500W for 10 minutes, no fan; 500W unlimited with fan; AM: 250W carrier maximum • Automatic bandswitching • Protection: Input overdrive, over current, over temperature • Size: 6" x 12¼ "d x 11¼"w

SG-235 Smartuner®

SGC 54-15
$1169.95



500W Microprocessor-Controlled HF Antenna Coupler

SmartTuning – now you can achieve perfect coupling to your HF rig at the 500 watt power level.

Operates with any HF transceiver from 1.8 to 30 MHz range with 3 to 500 watts output power.

Automatically tunes any length antenna from just 23 ft. long without preliminary tuning or adjustments.

The built-in microprocessor evaluates and switches 64 input and 32 output capacitance combinations plus 256 inductance combinations in a "pi" network (over a half-million possible combinations). The chosen frequency and tuning values are remembered allowing reselection of those values in less than 10 ms, each time you select that frequency. Flexibility is a key feature with its attractive options, including 24V DC.

• Microprocessor controlled • 1.8 to 30 MHz range • 3–500w input • Tunes from 23 ft. antenna at full power • Non-volatile memory • 10-mS retuning Time • Waterproof • 16d" x 12"w x 3"h inches

See Price List for selection of options and accessories for SGC Products

SGC Inc., SGC Building,13737 S.E. 26th St. Bellevue, WA. 98005
P.O.Box 3526, 98009 **Fax:** 425-746-6384 or 746-7173
Tel: 425-746-6310 or 1-800-259-7331
World Wide Web: www.sgcworld.com

No Compromise Communications

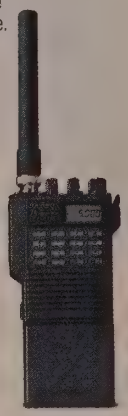
MADE IN USA

VX-150
Compact yet incredibly rugged 2-meter handheld is designed to perform under the most difficult operating conditions. And it's packed with the leading-edge features you've come to expect from a Yaesu product. Five Watt power-output, 209 memories, DCS/CTCSS, 7 digit alphanumeric display, automatic repeater shift and much more.

FT-50RD/41B
This durable, multi-featured 5 Watt Dual Bander is manufactured to rigid MIL-810 standards. Featuring wideband frequency coverage,* CTCSS/DCS operation, Dual Watch, 112 memory channels, and Digital Voice Storage.

FT23RMKII/FT33R
These ultra-compact, 5 Watt VHF FM Handhelds feature rugged die-cast aluminum cases, 10 memory channels, optional CTCSS, and multiple scan modes. The FT23RMKII (2M) and the FT-33R (222 MHz) are easy to operate, and give outstanding performance.

VX-110 **SPECIAL ORDER**
This incredibly rugged 5 Watt VHF handheld features 209 memories, Smart Search,™ DCS/CTCSS, simple 8 key operation and Omni Glow™ display illumination for night time operation.



FT411MKII/12
The affordable FT411MKII is compact and durable. This 5 Watt VHF FM Handheld features a die-cast case, 40 memory channels, 10 DTMF memories, built-in VOX, CTCSS, and multiple scan modes.

VX-1R
The pocket-sized VX-1R is small in size only. Featuring Smart Search,™ DCS/CTCSS, Dual Watch, ARTS,™ wide-band coverage (76–999* MHz plus AM BC). The VX-1R provides 291 memory channels, and puts out ½ Watt (1 Watt w/optional E-DC-15 DC Adapter).

* Cellular Blocked

VR-500
This miniature Handheld Receiver provides FM, AM, SSB and CW reception on 100 kHz–1300 MHz, with 1091 memory channels, Smart Search,™ versatile Dot Matrix display, Band Scope, and Dual Watch.

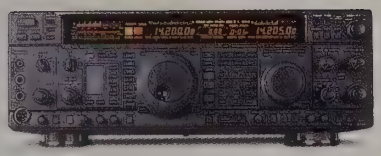
VX-5R
Although Yaesu's newest Tri-Band Handheld Transceiver is the world's smallest, it offers the performance of a full-size unit. The VX-5R operates on the 50 MHz, 144 MHz and 430 MHz bands with 5 Watts of power output, along with ultra-wide receive coverage of the VHF and UHF spectrum, plus AM medium- and short-wave broadcast reception. The VX-5R is military rated, so its durable, lightweight design allows you to take it anywhere. It is equally suited to walking through the concrete jungle as it is to forging the raging rivers of a real one. Along with a temperature display, the optional barometer pressure sensor unit gives a read-out of barometric pressure and altitude.

TOUGH GUYS.

When you're small, you get picked on. Isn't that how it goes? Well not in Yaesu territory, because not only do we design compact handhelds for efficiency, but we give these clever little guys plenty of muscle. Yaesu handheld transceivers have earned the bragging rights for being the smallest handhelds with the most durable water resistant casings ever created. And packed inside the brawn are engineering accomplishments in performance that are unmatched in the industry. Our high-tech handheld transceivers provide clean power output on the VHF and UHF bands and offer revolutionary features that allows these tough guys to continually outperform the competition. Learn more about Yaesu products on the web at www.yaesu.com

YAESU ...leading the way.

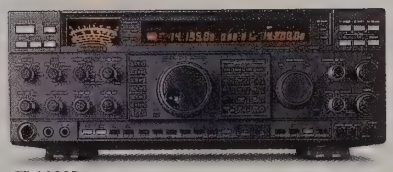
©2000 Yaesu USA, 17210 Edwards Road, Cerritos, CA 90703. (562) 404-2700. Specifications subject to change without notice. Specifications guaranteed only within amateur bands. Some accessories and/or options are standard in certain areas. Check with you local Yaesu dealer for specific details.



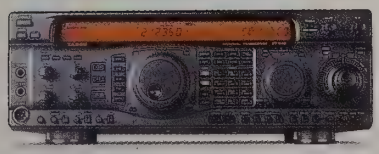
FT-1000MP
The radio of choice for world-class contest operators, the FT-1000MP provides 100 Watts of power, Enhanced DSP,™ Dual In-band Receive, Cascaded IF filters, General Coverage RX, and 160-10 M TX. (DC-only version also available.)

FT-840
Affordable yet feature filled, the FT-840 is an ideal traveling companion. It offers 160-10M TX with general coverage RX, 100 memory channels, DDS, CTCSS, Twin Band Stacking VFOs, and excellent receiver dynamic range.

FT-600 **SPECIAL ORDER**
This compact 100 Watt HF Transceiver offers the utmost in operating simplicity. The MIL-STD rated FT-600 covers the 160-10M Amateur bands with General Coverage Receive, 100 memory channels, Direct Keypad Frequency Entry, and a front-mounted speaker.



FT-1000D
Truly an elite-class HF masterpiece, the 200 Watt FT-1000D provides Dual Receive (in-band or cross-band), Cascaded IF Filters, extraordinary Dynamic Range, DDS, high-speed Automatic Antenna Tuner, and 100 memory channels.



FT-920
The FT-920 HF/6M Transceiver is designed for today's active Ham. It features high-speed DSP in all modes, 127 memory channels, AFSK or FSK Digital operation, new-technology MOSFET PA finals, high-speed Automatic Antenna Tuner, and high-resolution LCD display.

FT-100
This ultra-compact HF/VHF/UHF 100 Watt Transceiver provides SSB, CW, AM, FM and AFSK coverage of the HF, 6M, 2M and 70 CM bands. Features include 300 memory channels, built-in Electronic Memory Keyer, DSP, IF Shift, IF Noise Blanker, and CTCSS/DCS.

VL-1000/VP-1000 Quardra System
The VL-1000 Quadra System is a Solid-State Linear Amplifier featuring four twin-MOSFET PA modules to produce 1000 Watts of clean power output on 160-15 Meters (500 Watts on 6M, modifiable for 12/10 meters). Included are an Automatic Antenna tuner, 2 Input and 4 Output Antenna Jacks, and extensive status displays on the multi-function LCD.

FT-847
The introduction of the FT-847 completely redefines base station operation by offering three radios in one—HF, VHF/UHF and Satellite. A full power multi-mode transceiver, the appropriately named Earth Station covers the HF, 50 MHz, 144 MHz and 430 MHz bands, and it includes crossband Full Duplex operating capability for satellite work. Its exceptional receiver performance is ready for all aspects of DX work thanks to the DSP filtering. And for local FM work both CTCSS and DCS encode/decode are built in. The FT-847 is an engineering breakthrough offering you the earth, the sky, and the moon in one compact package.

THE TASK MASTERS.

They're out there. Those elusive DX signals that can't poke through the QRM regardless of the late-night hours you put in trying to find them. But when a Yaesu HF enters the picture, weak signals suddenly jump into your headphones. Yaesu's High Frequency transceiver technology uniquely combines years of RF and AF design know-how with cutting edge advancements in IF filtering, noise reduction, and dynamic range. Whether you're on high bands or low, at home or away, the high frequency technology of Yaesu's task masters quickly fills up your log with contacts. Learn more about Yaesu products on the web at www.yaesu.com

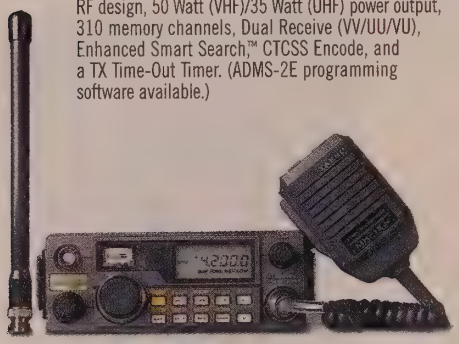
YAESU **Choice of the world's top DX'ers.**

©1999 Yaesu USA, 17210 Edwards Road, Cerritos, CA 90703, (562) 404-2700. Specifications subject to change without notice. Specifications guaranteed only within amateur bands. Some accessories and/or options are standard in certain areas. Check with you local Yaesu dealer for specific details.

FT-8100R
The versatile FT-8100R Dual Band Mobile offers rugged RF design, 50 Watt (VHF)/35 Watt (UHF) power output, 310 memory channels, Dual Receive (VV/UU/VU), Enhanced Smart Search,™ CTCSS Encode, and a TX Time-Out Timer. (ADMS-2E programming software available.)

FT-100
This ultra-compact HF/VHF/UHF 100W Transceiver provides SSB, CW, AM, FM and AFSK coverage of the HF, 6M, 2M and 70 CM bands. Features include 300 memory channels, built-in Electronic Memory Keyer, DSP, IF Shift, IF Noise Blanker, and CTCSS/DCS.

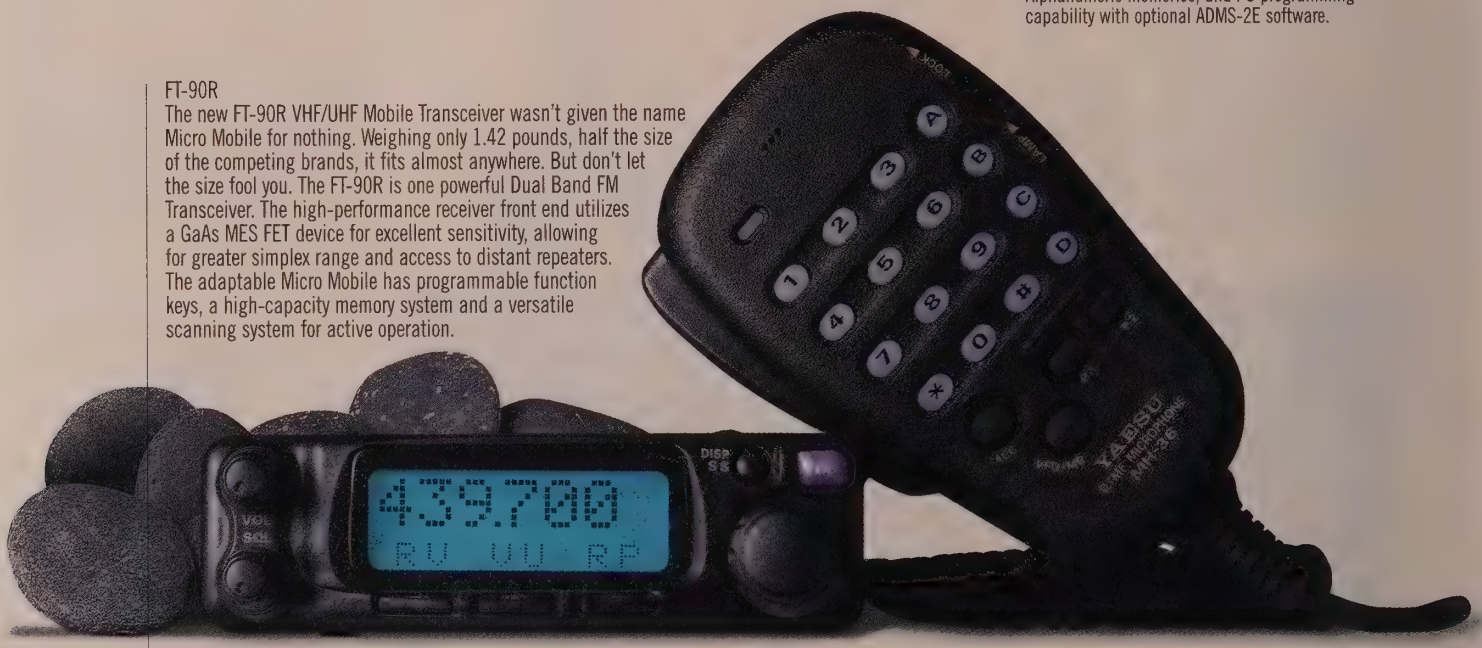
FT-3000M
This 70W high-powered 2M FM Mobile provides extended UHF receiver coverage, AM Aircraft RX, and is MIL-STD approved. The FT-3000M features 81 memory channels, Smart Search,™ CTCSS/DCS, optional ADMS-2E programming software, and is 1200/9600 Baud Packet compatible.



FT-290RII **CLOSEOUT**
Ideal for base, vacation, or expedition use, this 25 Watt 144 MHz Multimode Transceiver is outstanding for emergency, travel, or weak-signal DX work. Optional battery pack allows over-the-shoulder portable use for search-and-rescue operation.

FT-2600M
This heavy-duty VHF FM Mobile is encased in a durable aluminum die-cast chassis/heatsink assembly, and manufactured to MIL-STD 810 requirements. Features include 60 Watt power output, 179 memory channels, direct keypad frequency entry from microphone, Alphanumeric memories, and PC programming capability with optional ADMS-2E software.

FT-90R
The new FT-90R VHF/UHF Mobile Transceiver wasn't given the name Micro Mobile for nothing. Weighing only 1.42 pounds, half the size of the competing brands, it fits almost anywhere. But don't let the size fool you. The FT-90R is one powerful Dual Band FM Transceiver. The high-performance receiver front end utilizes a GaAs MES FET device for excellent sensitivity, allowing for greater simplex range and access to distant repeaters. The adaptable Micro Mobile has programmable function keys, a high-capacity memory system and a versatile scanning system for active operation.



LITTLE BIG MOUTH.

Life is an adventure. So whether you're on expedition or vacation, you will probably encounter some rough going along the way. And when you do, you'll be glad that your mobile transceiver is a Yaesu. With units small enough to install almost anywhere and rugged enough to achieve military approval for shock and vibration, Yaesu is the obvious choice for dependability. Its exceptionally clear signal and wide dynamic range tame even the most crowded bands, and provide outstanding protection from intermodulation in urban areas. Learn more about Yaesu products on the web at www.yaesu.com

YAESU ...leading the way.

©1999 Yaesu USA, 17210 Edwards Road, Cerritos, CA 90703, (562) 404-2700. Specifications subject to change without notice. Specifications guaranteed only within amateur bands. Some accessories and/or options are standard in certain areas. Check with you local Yaesu dealer for specific details.

THE VR-500 BRINGS YOU THE WORLD!

CARRY THE WORLD WITH YOU!

Continuous Coverage:
100 kHz to 1299.99995* MHz!

*Cellular telephone frequencies are blocked and cannot be received.

All Mode Reception:
FM, Wide-FM, USB, LSB, CW, and AM!

Huge Memory Capacity:
1091 Channels!

Ultra Compact Size!
58 mm x 24 mm x 95 mm
220 g (Including Antenna / Battery)
Simulated display / keypad illumination

Actual Size

Features

- Multiple Power Source Capability
- Direct Keypad Frequency Entry
- Large High-Output Speaker
- Polycarbonate Case
- Real-Time 60-ch* Band Scope
  *Range 6 MHz / Step 100 kHz
- Full Illumination For Display And Keypad
- Versatile Squelch / Monitor Key
- Convenient Preset Operating Mode
- Huge 1091-ch Memory System With Search & Scan
- Regular Memories (1000 ch)
- Search Band Memories (10 ch)
- Preset Channel Memories (19 ch + 10 Weather Channels)
- Dual Watch Memories (10 ch)
- Priority Memory (1 ch)
- Smart Search™ Memories (11/21/31/41 ch)
- Convenience Features
  •1 MHz Fast Steps •Front-end 20 dB Attenuator •RF Squelch •Power On / Power Off Timers • Adjustable Battery Saver •Extensive Menu Customization •Clone Capability •Computer Control

COMMUNICATIONS RECEIVER

VR-500

All-Mode Wideband Receiver

YAESU

For the latest news, contact products visit us on the Internet http://www.yaesu.com

©1999 Yaesu USA, 17210 Edwards Road, Lorena, CA 95651 (800) 400-2700
Specifications subject to change without notice.
Some accessories, photo options are standard in Canada and Europe with local, not Yaesu, warranty and support.

DUAL BAND HANDHELDS

Manufacturer Model	ICOM IC-Q7ABC	ICOM IC-T7H	ICOM IC-T8A/HP	ICOM IC-T81A	ICOM IC-W32A	KENWOOD TH-D7A	KENWOOD TH-G71A	KENWOOD TH-79AKSS
Tx Range (MHz)	144-148 440-450	144-148 440-450	50-54 144-148 440-450	50-54 144-148 440-450 1240-1300	144-148 440-450	144-148 430-450	144-148 430-450	144-148 438-450
Rx Range (MHz)[8]	30-1300	118-174 400-470	50-54 74-174	50-54 74-174 400-470 1240-1300	118-174 400-470	118-174 400-480	118-174 400-470	118-174 430-450[4]
Single/Dual Rx	Single	Single	Single	Single	Dual	Single[4]	Single	Dual
Aircraft Rx	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Output	350mW	6W	5W	5W[3]	5W	5W	5W	5W
Memories	200	70	123	124	200	200	200	82
CTCSS	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec
TTP	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alphanumeric	No	No	Yes	No	Yes	Yes	Yes	No
PC Programmable	No	Yes	Yes	Yes	Yes	Yes	No	No
Battery Type	Ni-Cad	Ni-Cad	Ni-NmH	Ni-NmH	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad
Ant.Connector	SMA	BNC	SMA	SMA	BNC	SMA	SMA	BNC
Height (in.) Width (in.) Depth (in.) Weigh (oz.)	3.8 2.3 1.1 6.4	4.8 2.3 1.1 14.3	4.3 2.3 1.2 9.9	4.3 2.3 1.2 9.9	5.5 2.3 1.4 16	4.7 2.1 1.7 13.4	4.4 2.1 1.3 11.6	5.1 2.2 1.0 11.2
Price	$134.95	$229.95	$239.95	$349.95	$299.95	$399.95	$249.95	$379.95

Manufacturer Model	ADI AT-600HP	ALINCO DJ-C5T	ALINCO DJ-G5TH	ALINCO DJ-V5TH	ALINCO DJ-V5TDCH	YAESU FT-50RD/41B	YAESU VX-1R	YAESU VX-5R
Tx Range (MHz)	144-148 430-450	144-148 420-450	144-148 438-450	144-148 420-450	Same specifications as the DJ-V5TH but has a clear, see-thru case to show off the internal components. Also includes a "AA" battery pack along with the standard Ni-Cad pack. Special Order	144-148 430-450	144-148 430-450	50-54 144-148 430-450
Rx Range (MHz)[8]	108-174 330-499	118-174 420-450	108-174 438-450	76-999[2]		76-200 300-540 590-999	76-999	0.5-16 48-729 800-999
Single/Dual Rx	Dual	Single	Dual	Single		Single	Single	Single
Aircraft Rx	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Power Output	5W	300mW	5W	5W		5W	500mW[7]	5W
Memories	200[6]	50	80/80[1]	200		112	291	220
CTCSS	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec		Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS
TTP	Yes	No	Yes	Yes		Yes	No	Yes
Alphanumeric	Yes	No	No	Yes		Yes	Yes	Yes
PC Programmable	Yes	No	No	No		Yes	Yes	Yes
Battery Type	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad		Ni-Cad	L-ion	Li-ion
Ant. Connector	BNC	None	BNC	SMA		SMA	SMA	SMA
Height (in.) Width (in.) Depth (in.) Weigh (oz.)	6.5 2 1.5 15.5	3.7 2.2 0.4 3.2	5.4 2.2 1.1 12.8	3.8 2.3 1.3 12		3.9 2.3 1.2 11.5	3.2 1.9 1 4	4.1 2.4 1.3 10
Price	$259.95	$149.95	$279.95	$239.95	$259.95	$239.95	$169.95	$319.95

(1) 80 memory channels per side
(2) Requires internal modification
(3) 1W on 1.2 gHz
(4) Dual operation between Voice & Data
(6) 120 Alphanumeric
(7) 1W with wall cube or cigarette adapter
(8) All radios are cell blocked

All prices after Instant Coupons. Expiration dates vary, call for details.

MFJ ENTERPRISES, INC.

Explore exotic 50MHz band openings, Tropo, Sporadic E, F2, TE, Aurora, Scatter, and more.

9406X 6M SSB Adventure Radio with Mic Full CW/SSB coverage: VFO tunes 50-50.3MHz, covers CW, propagation beacons, SSB. Smooth reduction-drive analog VFO and fine-tune control makes tuning signals easy. Only 2½"h x 6½"w x 6"d. Opt. CW module and power supply. **Potent Signal:** 10W PEP output. Syllabic speech processing adds up to 6dB more punch to cut through noise, fading and QRM. Incl. hand microphone is designed to complement the speech processing. Built-in 60MHz lowpass filter prevents TVI. **Hot/Selective Receiver:** Crystal-mixed single-conversion superheat with low-noise preamp digs deep into the noise floor to capture weak signals. A sharp SSB ladder filter reduces QRM/passband noise **$249.95**

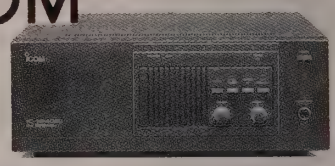
6M ACCESSORIES

416 CW module for 9406X, provides semi-QSK break-in and sidetone **$49.95**

4110 110V AC wall adapter transformer and voltage regulator for 9406X (13.6V DC out) **$49.95**

4114 Portable battery pack. Uses Ni-Cad, Alkaline, regular D cells or 110VAC. Includes charger for Ni-Cads. Fastens to 9406X **$69.95**

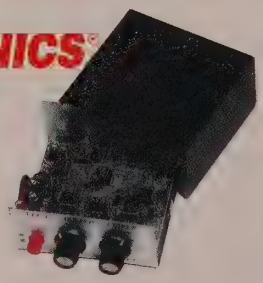
ICOM



FM REPEATER

RP-4020/50W 430-450 MHz, 50W output • Commercial quality • 24 hour continuous duty • AC/DC operation • DTMF remote control • Programmable CW I.D. • Time-out timer • 5.9"h x 14.5"d x 14.5"d, 37.5 lb ...Special Order **$2649.95**

VECTRONICS®



Electronic Kits Each Vectronics kit features a professional quality epoxy glass PC board with solder mask and screen printed component legend, simple step-by-step instruction manual and the highest quality components. Kit assembly is easy, and they work the first time • 40M receiver • Crystal radio • 40M CW transmitter • AM radio transmitter • TV transmitter • Aircraft receiver • 2M preamp • 220MHz preamp • CW keyer • Battery conditioner • FM broadcast SCA decoder • CW audio filter • CW filter/amplifier kit • SSB audio filter • Tunable SSB/CW audio filter • Selected kits in stock! .. **See the Price Guide**

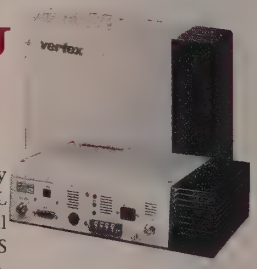
CHEROKEE™

AH-50 SF 6M FM Transceiver 50-54MHz coverage • Selectable offset • Backlit LCD with function indicators • Full 5W output power • Selectable 1W mode • CTCSS tone frequency for privacy • 5 programmable memories • Full normal and reverse repeater functions • Battery power saver with low battery indication • Optional MA-27 adapter for mobile • 6"h x 2½"w x 1¼"d • Includes: flexible antenna, Ni-Cad battery pack, power adapter, battery charger, belt clip and wrist strap .... Closeout **$139.95**

AH-50 Same as above w/out selectable offset Closeout **$119.95**

YAESU

vertex



FM REPEATERS

• 2–25W 100% duty cycle • 8 Channels – PLL synthesizer • Optional program. kit • CTCSS encode/decode • Programmable features: Freq-uency, CTCSS, Hi/Low power, Hang timer, Time-out timer • Wall Mount or optional 19" rack mounting kit • DB-25 connector for accessory and 8-pin modular jack for phone line • Modular card style unit construction • 14¾" x 10¾" x 4¾", 25 lbs

VXR-5000UCDC 440MHz, DC **$1199.95**
VXR-5000U/TC 440MHz, AC supply . **$1399.95**
VXR-5000VADC 2m, 12VDC @ 7A **$1199.95**
VXR-5000V/TA 2m, AC supply..... **$1399.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Mono Band Transceivers

Manufacturer Model	ADI AR-147+	ADI AR-247	ADI AR-446	ALINCO AR-447	ALINCO DR-M03SX	ALINCO DR-M06TH	ALINCO DR-140TQ	ALINCO DR-150TQ	ALINCO DR-430TQ	ICOM IC-2100H
Band	2 meters	220MHz	70 cm	70 cm	10 meters	6 meters	2 meters	2 meters	70 cm	2 meters
TX Range (MHz)	144-148	222-225	430-450	430-450	28-29.7	50-54	144-148	144-148	440-450	144-148
Rx Range (MHz)(4)	118-171	216-229	420-480	400-470	28-29.7	40-60(1)	118-174	108-174 440-450(3)	440-450	136-174
Aircraft Rx	Yes	N/A	No	Yes	N/A	N/A	N/A	No	No	No
Power Output	60/15/5W	35/15/5W	35/10/5W	30/10/5W	10/1W	20/1W	50/5W	50/25/10W	35/5W	55/10/5W
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tone Decode	Yes/DCS	Yes/DCS	Yes	Yes/DCS	EJ-20U	EJ-20U	Yes	Yes	Yes	Yes
Memories	80	80	40	80	100	100	51	100	20/80(2)	113
Alphanumeric	No	No	No	No	No	No	Yes	No	No	Yes
PC Programmable	Yes	Yes	No	Yes	N/A	N/A	N/A	No	No	Yes
13.8V DC@	12A	8A	10A	10A	3A	5A	10.5A	10A	10.5A	12A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239
Height (in.)	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Width (in.)	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.5	5.5	5.5
Depth (in.)	6.5	6.3	6.3	6.3	4.5	4.5	6.1	5.1	6.1	7.1
Weight (lbs.)	2.65	2.65	2.65	2.65	1.5	1.5	1.9	1.76	1.9	2.5
Price	$189.95	$299.95	$229.95 C/O	$249.95	$164.95	$249.95	$194.95	$219.95	$229.95	$199.95

Manufacturer Model	KENWOOD TM-261A	KENWOOD TM-331A	KENWOOD TM-461A	KENWOOD TM-541A	YAESU FT-2600M	YAESU FT-3000M
Band	2 meters	220MHz	70cm	1.2gHz	2 meters	2 meters
TX Range (MHz)	144-148	222-225	438-450	1240-1300	144-148	144-148
Rx Range (MHz)(4)	118-174	222-225	400-470	1240-1300	136-174	110-180 300-520 800-999
Aircraft Rx	No	No	Yes	No	Yes	Yes
Power Output	50/10/5W	25/10/5W	35/10/5W	10W	60W	70/50/25/10W
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes
Tone Decode	TSU-8	KQT-8	TSU-8	KQT-8	Yes/DCS	FTS-17A
Memories	62	20	62	20	60	81
Alphanumeric	Yes	No	Yes	No	Yes	Yes
PC Programmable	No	No	No	No	Yes	Yes
13.8V DC@	11A	6.5A	10A	6A	10A	15A
Antenna Conn	SO-239	SO-239	SO-239	Type-N	SO-239	SO-239
Height (in.)	1.6	1.7	1.7	1.57	1.6	1.5
Width (in.)	5.5	5.5	5.5	5.5	6.3	5.5
Depth (in.)	6.3	6.6	6.6	6.3	6.3	7.0
Weight (lbs.)	2.2	2.65	2.2	2.4	2.9	2.75
Price	$169.95	$469.95	$439.95	$449.95	$209.95	$399.95

All prices after Instant Coupons. Expiration dates vary, call for details.

(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) Receive only on 70cm
(4) All radios are cell blocked

TIMES MICROWAVE SYSTEMS

LMR-400 **Low-Loss Flexible Coaxial Cable** The Ideal for replacement for RG-8/9913 Air-Dielectric type cables. **Flexible:** One inch minimum bend radius and easier to handle compared to corrugated copper or smooth wall copper hard-line cables. **Dielectric** High velocity gas-injected closed cell foam dielectric, 0.208 in. **RF Shielding:** Bonded aluminum tape outer conductor, overlapped to provide 100% coverage and a 95% overall tinned copper braid. Lowest loss of any RG8/RG213 'type' cable. **Inner Conductor** Solid BCCAI, 0.108" **Jacket:** UV protected black polyethylene, 0.405" **Velocity Factor:** 85% **Low Loss/100':** 0.9dB @ 50MHz; 1.5dB @ 150MHz; 1.9dB @ 220MHz; 2.7dB @ 450 MHz; 3.9 dB @ 900 MHz; 6.0dB @ 2000 MHz .....per ft. **64¢**
LMR-400500 500 foot roll of above..... **$249.95**

LMR-400-DB **Watertight Flexible Coaxial Cable** Same specifications as LMR-400 but incorporates an inert flooding compound that completely eliminates all paths of water migration and ingress for long term reliability (10 year warranty)..per ft. **74¢**
LMR-400DB500 500 ft. roll of above.. **$299.95**

LMR-400-UF **ULTRA-FLEX Coaxial Cable** Stranded center conductor, very flexible, best used on rotating antenna systems and for jumpers. Loss figures are 15% greater than LMR-400....per ft. **98¢**
LMR-400UF500 500 ft. roll of above.. **$399.95**

ICOM

IC-718 **HF All Band Transceiver** The replacement for the popular IC-707. Features: Easy to use front panel controls with simple one-touch band switching; Direct frequency input via 10-button keypad; 0.03–29.9MHz general coverage receive; Adjustable power: 5-100W SSB, CW, RTTY, 2-40W AM; Built-in Keyer; Auto Tuning Steps (TS) – senses the rate the tuning knob is turned. Meter functions: Output power; ALC; VSWR; IF Shift; RIT; VOX; Microphone Compressor, Electronic Keyer; Digital S/RF Meter; Hand Microphone. Optional: DSP capability; Antenna tuners; IF filter; High Stability Crystal Oscillator Unit. 13.8V DC @ 20A..... **TBA**

RANGER Communications, Inc.

RCI-2950DX **12/10M Transceiver** An old favorite now updated with an improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Operate local communications as well as frequent worldwide DX, base or mobile. Participate in club events, emergency communications and more! Covers 24.800–24.9900 and 28.0–29.6999MHz with an RF output of 25W on SSB and 10W on CW/AM/FM. The RCI-2950DX also features auto SWR monitor, receiver clarifier, noise blanker/ANL and programmable repeater offset. The unit has a large frequency display with dimmer and an active frequency scanner with 10 programmable frequencies. A frequency selector lockout and PA feature are also included **$249.95**
RCI-2970DX 150W SSB version (50W CW/FM/AM)..... **$379.95**

YAESU

FT-1500M **2M FM Mobile Transceiver** A trend-setting blend of compactness and functionality. Excellent receiver performance, direct keypad frequency entry, alpha-numeric memory system, and 50W of output power are just the start! Easy to install, program, and operate. Features 50W, 144-148MHz tx, 137-174MHz rx, CTCSS enc/decode, 1200/9600 packet compatible, 130 mem., 10 weather channels, Windows programmable..... **$229.95**

HF RADIOS

Manufacturer Model	ALINCO DX-70TH	ALINCO DX-77T	ICOM IC-718	ICOM IC-707	ICOM IC-706MKII	ICOM IC-706MkIIG	ICOM IC-746	ICOM IC-756	ICOM IC-756PRO	ICOM IC-775DSP	ICOM IC-781
Bands	HF, 6M	HF	HF	HF	HF, 6M,2M	HF, 6M,2M, 70CM	HF, 6M, 2M	HF, 6M	HF, 6M	HF	HF
Rx Range (MHz)	.15-30, 50-54	.5-30	.03-30	.5-30	.5-30	.03-200, 400-470	.03-200	.03-60	.03-60	1-30	.1-30
Power (SSB/CW/FM)	100W HF/6M	10-100W	5-100W 2-20W (70CM)	5-100W(2) 2-10W 2M	5-100 HF/6M 2.5-50W 2M	5-100 HF/6M	5-100 HF/6M/2M	5-100 HF/6M	5-100	5-200W	150W
Power (AM)	40W HF/6M	4-40W	2-40W	5-25W	2-40W HF	2-40W HF 2-20W 2M 2-8W 70CM	5-40W H/6M/2M	5-40 HF/6M	5-40	5-50W	75W
DSP	No	No	Optional	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Tuner	No	No	Optional	Optional	Optional	Optional	Internal	Internal	Internal	Internal	Internal
Keyer	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Speech Readout	No	No	Optional	No	Optional	Optional	Optional	Optional	Optional	Optional	Optional
VOX	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Requirments	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12V DC, 20A	12VDC, 23A	125VAC	125V AC
Antenna ports	2(1)	1	1	1	2(3)	2(4)	3(5)	2	2	2	1
Computer Port	No	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Height (in.)	2.3	3.7	3.75	3.7	2.3	2.3	4.7	4.4	18.3	5.9	5.9
Width (in.)	7	9.8	9.44	9.5	6.6	6.6	11.3	13.4	4.3	16.7	16.1
Depth (in.)	9	9	9.40	9.4	7.9	7.9	12.5	11.2	11.2	15.4	16.2
Weight (lbs.)	6	8.4	8.4	9.1	5.5	5.5	19.5	23.1	21	36.8	50.7
Price	$759.95	$719.95	TBA	$649.95 C/O	$998.95 C/O	$1149.95	$1489.95	$1988.95 C/O	$2999.95	$3499.95	$6999.95(7)

Manufacturer Model	KENWOOD TS-50S	KENWOOD TS-570D(G)	KENWOOD TS-570S(G)	KENWOOD TS-870S	KENWOOD TS-950SDX	YAESU FT-840	YAESU FT-100	YAESU FT-847	YAESU FT-920	YAESU FT-1000MP	YAESU FT-1000D
Bands	HF	HF	HF, 6M	HF	HF	HF	HF, 6M, 2M, 70CM	HF, 6M, 2M, 70CM	HF, 6M	HF	HF
Rx Range (MHz)	.5-30	.5-30	.5-30, 6M	.1-30	.1-30	.1-30	.1-961(8)	.1-30, 36-76 108-174, 420-512	.1-30, 48-56	.1-30	.1-30
Power (SSB/CW/FM)	100W	5-100W	5-100W HF/6M	100W	20-150W	100W(2)	100W HF/6M 50W 2M, 20W 70CM	5-100W HF/6M 50W 2M/70CM	10-100W	100W	20-200W
Power (AM)	5-40W	5-25W	5-25W	25W	10-40W	25W	25W HF/6M 20W 2M, 12.5W 70CM	25W HF/6M 12.5W 2M/70CM	2.5-25W	25W	50W
DSP	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Tuner	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Keyer	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Speech Readout	No	Optional	Optional	Optional	Optional	No	No	Optional	No	No	No
VOX	No	Yes	Yes	Yes	Yes	No	Yes	N o	Yes	Yes	Yes
Power Requirments	12VDC, 20.5A	12VDC, 20.5A	12VDC, 20.5A	12VDC, 20.5A	125VAC	12VDC, 22A	12VDC, 22A	12VDC, 22A	12VDC, 22A	125VAC	125VAC
Antenna ports	1	2	2	2	1	1	2(4)	4(6)	2	2	1
Computer Port	Optional	RS-232	RS-232	RS-232	Optional	Optional	Optional	RS-232	Optional	Optional	Optional
Height (in.)	2.4	3.8	3.8	4.8	6	3.7	2.2	3.4	5.3	5.4	5.9
Width (in.)	7.1	10.6	10.6	13	16.1	9.4	6.3	10.2	16.1	16.4	16.4
Depth (in.)	9.2	10.7	10.7	13.1	17.6	9.6	8	10.6	12.4	13.9	14.8
Weight (lbs.)	6.4	15	15	25.4	50.6	12	6.6	14.4	30.8	33	51
Price	$699.95	$1099.95	$1319.95	$2299.95	$3999.95	$739.95	$1099.95	$1499.95	$1369.95	$2799.95	$4199.95

Manufacturer Model	SGC 04-01 SG-2000	SGC 04-10 SG-2000/POWERTALK	SGC 05-01 SG-2020
Bands	HF	HF	HF
Rx Range (MHz)	.5-30	.5-30	1.8-29.7
Power (SSB/CW/FM)	150W SSB/CW	150W SSB/CW	0-20W SSB/CW
Power (AM)	40W	40W	No
DSP	No	Yes	No
Tuner	No	No	No
Keyer	No	No	Yes
Speech Readout	No	No	No
VOX	No	No	No
Power Requirments	12VDC, 30A	12VDC, 30A	12V DC, 5A
Antenna ports	1	1	1
Computer Port	Optional	Optional	Optional
Height (in.)	4.6	4.6	2.75
Width (in.)	10	10	6
Depth (in.)	15	15	7.25
Weight (lbs.)	12	12	2.5
Price	$1599.95	$1849.95	$675.95

All prices after Instant Coupons. Expiration dates vary, call for details.

(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M on one port, 2M on second port
(4) HF/6M one port, 2M/440MHz second port
(5) Two ports for HF, one dedicated for 2M
(6) Port per band. HF/6M can be combined
(7) Special order
(8) Cell blocked

We accept I.M.P.A.C.® Government Credit Cards

Perfect Gift for the Person with Everything!

Gift Certificates Available For The Undecided

We have Gift Certificates and a selection of over 5,000 major items and accessories to choose from. Certificates may be purchased from our Milwaukee store by calling

1-800-558-0411

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MONO BAND HANDHELDS

Manufacturer Model	ALINCO DJ-180TH	ALINCO DJ-195T	ALINCO DJ-280TH	ALINCO DJ-C4T	ALINCO DJ-S11T	ALINCO DJ-S41T	ICOM IC-2GXAT/HP	ICOM IC-T2H	ICOM IC-T22A	CHEROKEE AH-50SF	KENWOOD TH-22ATH
Band	2 meters	2 meters	220MHz	440MHz	2 meters	440MHz	2 meters	2 meters	2 meters	6 meters	2 meters
Rx Range (MHz)[1,6]	137-174	135-174	220-225	420-450	144-148	425-450	144-148[8]	136-174	136-174	50-54	136-174
Aircraft Rx	No	No	No	No	No	No	No	No	Yes	No	No
Power Output	5W	5W	5W	300mW	340mW	340mW	7W	6W	5W[9]	5W	5W
Touch-Tone Pad	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tone Decode	Yes	Yes[4]	No	No	No	No	Yes	Yes	Yes	No	TSU-8
Memories	10/50[2]/200[3]	40	10/50[2]/200[3]	21	21	21	400	40	80/40[10]	5	41
Alphanumeric	No	Yes	No	No	No	No	No	Yes	Yes	No	No
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Li-ion	AA	AA	Ni-Cad	Ni-Cad*	Ni-Cad	Ni-Cad	Ni-Cad
PC Programmable	No	No	No	No	No	No	No	Yes	No	No	No
Antenna Conn	BNC	BNC	BNC	Fixed[5]	Fixed[7]	Fixed[7]	BNC	BNC	BNC	BNC	BNC
Height (in.)	5.2	4.9	5.2	3.7	3.9	3.9	4.9	4.5	4.8	6.0	4.6
Width (in.)	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.5	2.2
Depth (in.)	1.3	1.6	1.3	0.4	1.1	1.1	1.4	1.3	1.1	1.3	1.0
Weight (oz.)	12.3	13.2	12.3	2.5	2.72	2.72	12.5	14.8	10.9	14	10.2
Price	$149.95	$159.95	$169.95	$69.95 C/O	$79.95	$79.95	$229.95	$169.95	$239.95	$139.95 C/O	$229.95

Manufacturer Model	ADI AT-201HP	ADI AT-400HP	ADI PR-52	ADI PR-222	YAESU FT-23R12	YAESU FT-33R	YAESU FT-411MKII/12	YAESU FT-911
Band	2 meters	440MHz	6 meters	220MHz	2 meters	220MHz	2 meters	1.2gHz
Rx Range (MHz)	130-170	430-450	44-54	216-229	144-148	220-225	130-174	1240-1300
Aircraft Rx	No	No	No	No	No	No	No	No
Power Output	5W	5W	5W	5W	5W	5W	5W	1W
Touch-Tone Pad	Yes	Yes	Yes	Yes	FTT-4	FTT-4	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	FTS-12	FTS-12	Yes	Yes
Tone Decode	Yes	Yes	Yes	Yes	FTS-12	FTS-12	FTS-17A	FTS-17
Memories	40	20	40	40	10	10	49	49
Alphanumeric	No	No	No	No	No	No	No	No
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-cad	Ni-cad	Ni-cad	Ni-Cad
PC Programmable	No	No	Yes	Yes	No	No	No	No
Antenna Conn	BNC	BNC	TNC[1]	BNC	BNC	BNC	BNC	BNC
Height (in.)	3.3	3.3	4.25	4.25	6.1	6.1	6.1	6.1
Width (in.)	2.2	2.2	2.0	2.0	2.2	2.2	2.2	2.2
Depth (in.)	1.2	1.2	0.75	0.75	1.3	1.3	1.3	1.3
Weight (oz.)	6.6	6.6	14.5	14.5	17.3	17.3	19.4	19.4
Price	$139.95	$119.95 C/O	$194.95	$194.95	$149.95 C/O	$249.95	$179.95	$459.95

All prices after Instant Coupons. Expiration dates vary, call for details.

*Alkaline case included with AA Ni-Cads
(1) TNC ant. jack commonly found on cell & commercial equip.
(2) With optional EJ-14U
(3) With optional EJ-15U
(4) Standard CTCSS plus DCS
(5) Telescoping non-removable ant. Comes w/wire receive ant.
(6) 75 with alphanumeric tags
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics

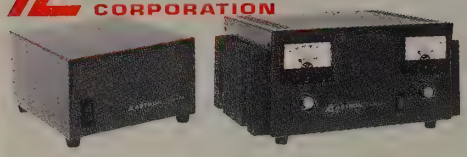
DUAL BAND VHF/UHF TRANSCEIVERS

Manufacturer Model	ALINCO DR-605TQ	ALINCO DR-610TQ	ICOM IC-207H	ICOM IC-2800H	KENWOOD TM-G707A	KENWOOD TM-V7A	KENWOOD TM-642AD[12]	KENWOOD TM-742AD	YAESU FT-8100R	YAESU FT-90R
Tx Range[13,16]	144-148 430-450	144-148 438-450	144-148 440-450	144-148 430-450	144-148 438-450	144-148 438-450	144-148 220-225	144-148 438-450	144-148 430-450	144-148 430-450
Rx Range (MHz)[13,16]	136-174 420-470	108-174 420-470[14]	118-174[14] 440-450	118-174[14] 430-450	118-174 410-524[14]	118-174 410-470[14]	118-174 213-235[14]	118-174 410-470[14]	110-550 750-1330[14]	100-230 300-530 810-1000
Single or Dual Rx	Dual	Dual	Single	Dual	Single	Dual	Dual	Dual	Dual	Single
Power (2M) Power (70CM)	50/5W 35/5W	50/10/5W 35/10/5W	50/20/10/5W 35/20/10/5W	50/20/10/5W 35/20/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 25/10/5W	50/10/5W 35/10/5W	50/20/5W 35/20/5W	50/20/10/5W 35/20/10W
Memories	100	120	182	232	180	280	101	101	310	186
Tone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CTCSS	Yes	Yes	Yes	Yes	Yes	Yes	Optional TSU-7	Optional TSU-7	FTS22	DCS
Duplexer	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Cross-Band Rpt.	Yes	Yes	No	Yes	No	Yes	Yes[17]	Yes[17]	Yes	No
Alphanumeric	No	No	No	Yes	Yes	Yes	No	No	No	Yes
PC Programmable	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes
9600b Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes[17]	Yes[17]	Yes	Yes
Height (in.)	1.6	1.6	1.6	2.8 (Head) 1.6 (Body)	1.6	1.6	1.9	1.9	1.6	1.2
Width (in.)	5.5	5.5	5.5	5.5 (Head) 5.5 (Body)	5.5	5.5	5.9	5.9	5.6	3.9
Depth (in)[15]	6.9	2.4	7.3	1.3 (Head) 6.5 (Body	7.4	7.4	6.9	6.9	6.4	5.4
Weight (lbs)	2.4	2.4	2.6	0.6 (Head) 2.5 (Body)	2.7	2.7	3.9	3.9	2.2	1.4
Separateable	No	Yes	Yes	Yes[11]	Yes	Yes	Yes	Yes	Yes	Yes
Price	$339.95	$439.95	$309.95	$519.95	$339.95	$449.95	$739.95	$649.95	$429.95	$399.95

All prices after Instant Coupons. Expiration dates vary, call for details.

(11) 2 Piece configuration only
(12) 2M/220MHz Transceiver
(13) All models are Cellular Blocked
(14) AM aircraft receive mode
(15) Does not include projections (knobs, antenna jacks, etc.)
(16) Manufacturer only guarantees specs within the ham bands
(17) Requires internal modification (available on request)
All radio are cell blocked

ASTRON CORPORATION



POWER SUPPLIES

The alternative to costly "matching" Supplies!

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year Warranty • Made in U.S.A.

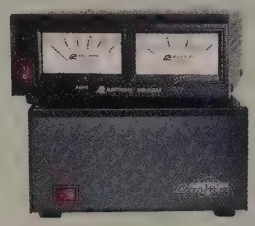
Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight	Price
RS-7A	5	7	3¾ x 6½ x 9	9	$59.95
RS-10A	7½	10	4 x 7½ x 10¾	11	69.95
RS-12A	9	12	4½ x 8 x 10¾	13	79.95
RS-20A	16	20	5 x 9 x 10¾	18	99.95
RS-35A	25	35	5 x 11 x 11	27	149.95
RS-35A/220V	Same as RS-35A but 220V input				169.95
RS-50A	37	50	6 x 13¾ x 12	46	219.95
RS-70A	57	70	6 x 13¾ x 12	48	259.95
With separate Volt & Amp meters					
RS-20M	16	20	5 x 9 x 10¾	18	119.95
RS-35M	25	35	5 x 11 x 11	27	169.95
RS-50M	37	50	6 x 13¾ x 11	46	239.95
RS-70M	57	70	6 x 13¾ x 12	48	289.95
Adjustable output; separate Volt & Amp meters					
VS-20ML	16	20	5 x 9 x 10½	20	139.95
VS-35M	25	35	5 x 11 x 11	29	189.95
VS-50M	37	50	6 x 13¾ x 11	46	259.95
Rack mount models; separate Volt & Amp meters					
RM-35M	25	35	5¼ x 19 x 12	38	249.95
RM-50M	37	50	5¼ x 19 x 12	50	279.95
RM-60M	50	55	7 x 19 x 12	60	359.95

POWER SUPPLIES WITH ADDED FEATURES

RS-4L Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3½"h x 6½"w x 4¾"d, 6 lbs **$49.95**

RS-12S Power supply with built-in speaker. Rated 13VDC @ 12 Amps peak and 9 Amps continuous. 4½"h x 8"w x 9"d, 13 lbs **$89.95**



SWITCHING POWER SUPPLIES

SS-25 12V DC, rated 20 amps continuous, 25 amps ICS. 3"h x 7"w x 9½"d, 4.2 lbs..... **$109.95**

SS-25M Same as above, but also includes voltage and amp meters **$129.95**

SS-30 12V DC, rated 25 amps continuous, 30 amps ICS, 3¾"h x 7"w x 9½"d, 4½ lbs..... **$119.95**

SS-30M Same as above, but also includes voltage and amp meters **$139.95**

POWER INVERTERS

12/115 *(General Purpose)* Converts 12V DC to 115VAC @ 60 Hz. Provides convenient AC house current in your boat, car, truck, camper, etc. Powers your ham rig, small household appliances, TV, tools, radios and lights up to 200W continuous, with peaks up to 240W and overload protected. Note: This unit produces square wave output, not recommended for devices where high transients are not tolerable. 4½"h x 8"w x 9"d, 9 lbs..... **$69.95**

N2412-12 *(28V Aircraft)* Converts 22 to 32V DC input to 13.8V DC output @ 9 amps. Eliminates tapping into a 28V battery for 12V power..... **$49.95**

N2412-24 Same as the model above, but is rated at 16 amps..... **$79.95**

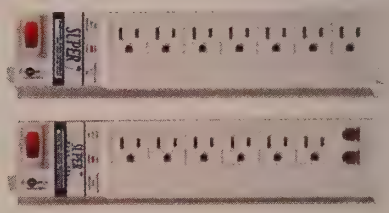
COMPACT INVERTERS

PowerVerter® Ultra These Low Cost DC to AC Inverters give you access to AC power wherever you need it. Harnessing the 12-volt battery power of your automobile, boat, RV or service truck, they let you use power tools at an out-of-the-way work site, household appliances at a campsite, or office equipment on the road.

Features: • Converts vehicle battery power to clean, safe and efficient AC power • Ultra compact design • Choice of 140w or 300w models • Plugs into vehicle cigarette-lighter socket (includes plug) • Electronic circuit protection • Low battery alarm and shutdown • Illuminated On/Off switch • Metal housing • Built-in high-speed cooling fan (PV-300)

PV-140 Offers 140W maximum continuous power and 200W surge capacity (peak power). This model has a modified sine wave and one AC receptacle. 6"l x 3"w x 1½"d, 1 lb. 4 oz..... **$49.95**

PV-300 This model is designed to deliver 300W maximum continuous power and 500W of surge capacity. It also offers a modified sine wave and two AC receptacles. 6"l x 4"w x 1¾"d, 2 lbs..... **$74.95**



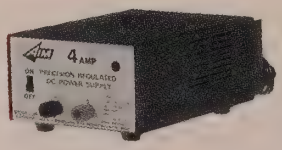
SURGE SUPPRESSORS

SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7 foot cord, three diagnostic LED indicators..... **$19.95**

SUPER-7+TEL Same as above, but features fax/ modem protection for RJ-11 modular jacks **$29.95**

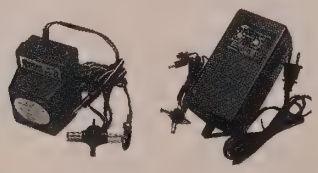
ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12 foot cord **$79.95**

AIM



SMALL POWER SUPPLIES

38-384 Light Duty DC Power Supply Input: 115V AC. Output: 13.8V DC regulated @ 4A Front panel binding posts, LED "ON" indicator, fuse protection. 7¾"d x 4¾"w x 3"h, 5½ lbs..... **$39.95**



38-305 AC Adapter *(left)* Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a maximum current rating of 500ma. Multiple application plugs and 9V snaps fit most devices... **$9.95**

38-312 Regulated AC Adapter *(right)* Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.95**

ALINCO

DM-340MVT DC Power Supply Input: 120V AC 50/60Hz • Output: 13.8V DC (0–15V adjustable) • Rated: 30A continuous – 35 amps maximum • Voltage Regulation: Under 2% • Ripple Voltage: Under 30mVp-p • Protection: Automatic shutdown over 35A • Separate volt and amp meters • Internal cooling fan • Binding posts • Quick-connects • Front panel cigar lighter socket • 9"w x 6"h x 9"d, 19 lbs..... **$179.95**

DIAMOND ANTENNA

GZV-4000 Switching Mode DC Power Supply with Built-in Speaker
120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitor. of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8¾" x 13" x 4½"; 8 lbs. **$179.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ Switching Power Supplies

Power your HF transceiver, 2 meter/440 MHz mobile/base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

4125

4225MV

4245MV

MFJ's adjustable voltage switching power supplies do it all! You can power your HF transceiver or 2-Meter/440 MHz mobile or base and accessories with ease.

MFJ's *MightyLites*™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere – No more picking up and hauling around heavy, bulky supplies.

MFJ's 25 Amp *MightyLite*™ weighs just 3.7 lbs. -- that's *5 times lighter* than an equivalent regular power supply. The 45 Amp'er is just 5.5 pounds!

No RF hash!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

Low Ripple and Highly Regulated

Less than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.

Fully Protected

You won't burn up our power supplies! They are fully protected with Over Voltage and Over Current protection circuits.

Worldwide Versatility

MFJ *MightyLites*™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

MightyLitesTM . . . Mighty Features

MFJ *MightyLites*™ model 4225 and 4245MV feature a front-panel voltage control. Lets you vary output voltage from 9–15VDC, highly regulated.

You get an easy access front-panel with five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. 4245MV has two sets of quick-connects on the rear for accessories.

Large 3 inch dual meters are brightly illuminated to make it easy to monitor load voltage and current.

A whisper quiet internal fan efficiently cools your power supply for long life.

MFJ "No Matter What™ Warranty"

MFJ will repair or replace (at MFJ option) your *MightyLites*™ supply for one full year.

Three models to choose from . . .

4125 (left) Basic, no metering. 25 Amps maximum or 22 Amps continuous. Measures 5½"w x 2½"h x 10¾"d.Weighs 3.5 pounds **$99.95**

4225MV (center) 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures 5¾ x 4½ x 6 inches **$139.95**

4245MV (right) 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures 7½ x 4¾ x 9 inches..... **$189.95**

MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

MFJ's heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. No RF hash -- it's super clean!

Fully protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel meters let you monitor voltage and current.

Three sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

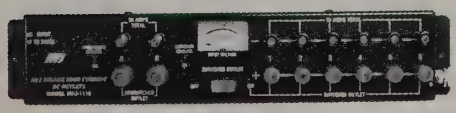
A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps components cool. 9½"w x 6"h x 9¾"d.

The 4035MV is protected by MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace (at MFJ option) your product for 1 full year.

4035MV $139.95

MFJ *High Current* Multiple DC Power Outlets

Power two HF/VHF transceivers and six or more accessories from your 12 VDC power supply

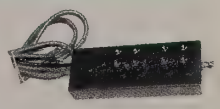


1118 (left) This is MFJ's most versatile and highest current *Deluxe Multiple DC Power Outlet*. Lets you power two HF and/or VHF transceivers and six or more accessories from your transceiver's main 12 VDC supply.

Two pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total. Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED indicator.

Built-in 0-25 VDC voltmeter. Six feet of super heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. 12½ x 2¾ x 2½ inches . **$74.95**

NEW! MFJ HF DC Power Outlet



1117 Similar to 1118 but can power up to four different HF or VHF radios at the same time. Two 35 amp single posts, one 35 amp dual post. Super tiny 8x2x3 inches fits anywhere at your operating position. No meter, power LED or on/off switch..... **$54.95**

1116 (center) Similar to 1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total **$49.95**

1112 (right) Similar to 1116. No on/off switch, LED, meter or fuse **$34.95**

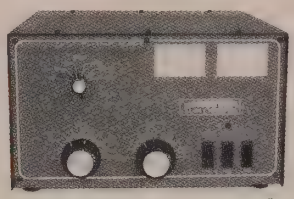
Each has MFJ's famous *No Matter What*™ one year limited warranty. MFJ will repair or replace (at MFJ's option) your high current multiple DC power outlet for 1 year.

We accept I.M.P.A.C.® Government Credit Cards

AMERITRON AMPLIFIERS

Ameritron AL-811 amplifiers... a world-wide reputation for legendary quality, flawless performance & proven reliability

AL-811H $749.95
AL-811 $599.95



HF Linear Amps with 811A Tubes

Only the Ameritron AL-811H gives you four fully neutralized 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes. Delivers 800 watts PEP, 600 watts CW output

Ameritron mounts the 811A tubes vertically – not horizontally – prevents hot tube elements from sagging and shorting out. Others, using potentially damaging horizontal mounting, require special 811As to retard sagging/shorting.

A quiet, powerful computer grade blower draws in plenty of cool air. It pressurizes the cabinet and efficiently cools your 811A tubes. Our air flow is so quiet, you'll hardly know it's there – unlike noisy, poorly chosen blowers.

You also get efficient full size heavy-duty tank coils, full height. computer grade capacitors, heavy-duty high silicon core power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with optional QSK-5 plus more!

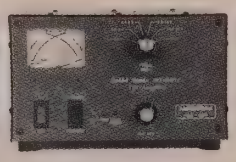
Model AL-800 uses three 811A tubes and delivers 600W PEP, 500W CW or 400W continuous output.

AL-80B $1199.95

Desktop Kilowatt Amplifier with 3-500ZG Graphite tube

Full kilowatt PEP output from a whisper quiet compact desktop linear. Only 8½ x 14 x 15½ inches. Plugs into nearest 120 VAC outlet. All bands 160-15 Meters, 1000 Watts out on SSB, 850 Watts out on CW, genuine Amperex 3-500ZG tube has graphite plate, nearly 70% efficiency, inrush current protection, multi-voltage transformer.

ALS-500M



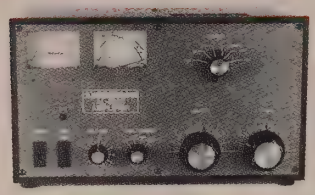
ALS-600

ALS-500M Mobile no tune Solid State mobile amp has 500 watts output and covers 1.5-22 MHz

Ideal mobile amplifier uses 13.8 Vdc mobile electrical system, very compact – only 3½ x 9 x 15 inches, extremely quiet, 500 W output, 1.5-22 MHz coverage, instant bandswitching, no tuning, no warm up, no tubes, SWR protected..... **$699.95**

ALS-600 No tune Solid State base amp includes heavy duty power supply, delivers 600 Watts output

No tuning, no fuss, no worries -- just turn it on and operate. Includes AC power supply, 600 W output, continuous 1.5-22 MHz coverage, instant bandswitching, fully SWR protected, extremely quiet, very compact. Amplifier is 6 x 9½ x12"..... **$1129.95**



AL-800H $2199.95
AL-800 $1529.95

HF Linear Amps with the Eimac™3CX800A7

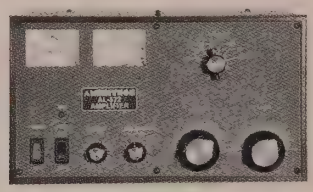
Ameritron's AL-800/H amplifiers cover 160-15 Meters including WARC bands. The AL-800 has a single Eimac® 3CX800A7 tube and produces 1250 Watts PEP. **Model AL-800H** has two 3CX800A7s giving 1500 watts plus.

Both amps have an adjustable slug tuned input circuit, grid protection, ALC control that is front panel adjustable, vernier reduction drives, heavy duty 32 lb. grain oriented silicone steel core transformers & high capacitance computer grade filter capacitors.

These amplifiers have multi-voltage operation (14 user slectable AC line voltage from 90-140; 200-250 VAC), quiet pressurized ventilation systems, dual illuminated Cross-Needle meters that read peak forward and reflected power, SWR, high voltage, grid current and plate current.

Vernier reduction drives make tuning adjustments smooth & easy. Ameritron's exclusive *Step-Start Inrush Protection*™ stops damage to your amplifier from inrush current. Amps feature an attractive Lexan front panel decal & superior, all metal construction – it's built to last! Ultra compact desktop size is perfect for your operating station. 8½ x 16½ x 14¾".

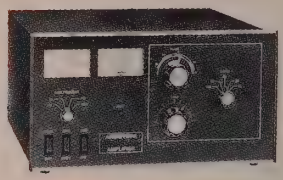
AL-572 $1299.95



Near Legal Limit™

New class of *Near Legal Limit*™ amplifier gives you 1300 Watt PEP SSB power output for 65% of price of full legal limit amps! Four rugged Svetlana Russian 572B tubes. Instant 3-second warm-up. Plugs into 120 VAC. Compact 8½ x 15½ x 14½ inches. Covers 160 to 15 meters, delivering 1000 watts CW output. Tuned input, instantaneous RF Bias, dynamic ALC, parasitic killer, inrush protection, two lighted Cross-Needle meters, multi-voltage transformer.

AMERITRON offers the best selection of legal limit amplifiers

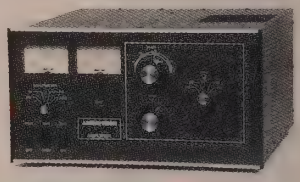


AL-1500 $2469.95

Ameritron's most powerful Linear... single 3CX-1500/8887

Herculean *Eimac*® 8877 ceramic tube. It's so powerful that 65 watts drive gives you the full legal output – and it's just loafing because the power supply is capable of 2500 Watts PEP.

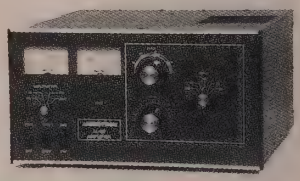
AL-1200 $2069.95



Single 3CX1200A7 linear Amp

Get ham radio's toughest tube with the Ameritron AL-1200 – the *Eimac*® 3CX1200A7. It has a 50 watt control grid dissipation. What makes the Ameritron stand out from other legal limit amplifiers? The answer: A super heavy duty power supply that loafs at full legal power – it can deliver the power of more than 2500 watts PEP two tone output for a half hour.

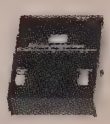
AL-82 $1999.95



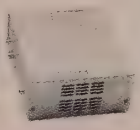
Dual 3-500ZG linear

This linear gives you full legal output using a pair of 3-500s. Most competing linears using 3-500s can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential.

AMERITRON's legal limit amps are 18 x17x10 inches and weigh approx. 77 lbs. All use a super heavy duty Hypersil® power transformer capable of 2500 WATTS!



ATP-100



ADL-2500

ADL-1500

QSK-5

ICP-120/240

AWM-30

ATR-30

AMERITRON ACCESSORIES

ATP-100 Tuning Pulser safely tunes an amp Prevents overheating, tube damage, power supply stress & component failure **$49.95**

ADL-2500 Fan cooled 2500 W dry dummy load Quiet fan. 2500 Watts average power for 1 min. on, 10 off. 300W cont. SWR below 1.4:1 ..... **$189.95**

ADL-1500 Dummy Load with container and oil Oil cooled, 50Ω load handles 1500W for 5 min. SWR under 1.2:1-30MHz. Low SWR to 400 MHz **$69.95**

QSK-5 Pin diode transmit receive Switch Connects externally to most HF amps. Handles 2.5 kW PEP, 2 KW CW. 6X faster than vacuum relay..... **$329.95**

ICP-120/240 In-rush current protectors Stops power-up in-rush current. Absorbs momentary high-voltage spikes to an amp. ICP-120 for 110-120V; ICP-240 for 220-240V.....ea. **$79.95**

AWM-30 Precision SWR Wattmeter Gives true active peak/average readings. Lighted cross-needle meter. 3000/300 Watt ranges..... **$139.95**

ATR-30 *True Legal Limit* **Antenna Tuner** True high power even on 160M where most others fail. Edge wound, silver-plated *AirCore*™ inductor..... **$549.95**

RCS-8V Remote Coax Switch Replace 5 coax feedlines with a single coax. 1.2 SWR at 250 MHz. Useable to 450 MHz. 1 kW at 150 MHz... **$139.95** **RCS-4** 4 position remote switch..... **$129.95**

RCS-4

ARB-702

ARB-702 Amp-to-radio interface Protects costly transceivers from damage by keying line transients, steady state current & excessive voltages. For Icom, Kenwood or Yaesu .....ea. **$39.95**

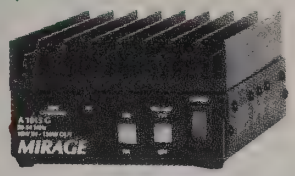
Order Toll Free:
1-800-558-0411
M-F 6:00 A.M. Pacific to 8:30 P.M. Eastern; Sat. to 6:00p.m. Eastern

MIRAGE

Turn your mobile, base or handheld into a 160 Watt powerhouse and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . GaAsFET preamp . . .

The MIRAGE B-5016-G gives you 160 Watts of brute power for 50 Watts input on all modes -- **FM, SSB or CW!**

B-5016G
$269.95



Power Curve – typical B-5016-G output power								
Watts Out	130	135	140	145	150	155	160	160+
Watts In	20	25	30	35	40	45	50	55

Ideal for 20 to 60 Watt 2 Meter mobile or base. *Power Curve* chart shows typical output power.

Hear weak signals – the low noise figure (0.6dB) GaAsFET preamp has selectable 15 or 20 dB gain.

B-5016-G has legendary ruggedness. *We know of one that has been in constant use since 1979!*

Heavy-duty heatsink spans entire length of cabinet and prevents overheating. Power transistors are protected by MIRAGE's Therm-O-Guard™.

Fully protected from high SWR and excessive input power. Has warning LED.

Has smooth adjustable Transmit/Receive switching with remote external keying.

Draws 17-22 amps @ 13.8 VDC.

Size: 12 x3 x 5-1/2 inches.

RC-1 **Remote Control.** On/Off, preamp On/Off, selects SSB/FM. 18 ft. cable **$45.95**

More 160 Watt, 2 Meter Amplifiers . . .

B-2516G For 10 to 35 Watt *mobile or base* stations. 160 Watts out for 25 Watts in **$269.95**

B-1016G MIRAGE's *most popular* dual purpose HT or mobile/base amplifier. 160 Watts out/10 Watts in. For 0.2-15 Watt radios..... **$339.95**

B-215G MIRAGE's *most popular* handheld amp. 150 Watts out for 2 Watts in; 150 Watts out for 3½ Watts in. For 0.25 to 5 Watt HTs **$339.95**

35 Watts for 2 Meter HTs

B-34G
(bottom)
$89.95

- 35 Watts out - 2M • All Modes: FM, SSB, CW
- 18 dB GaAsFET preamp
- Reverse Polarity protect • Works w/HTs to 8 W

B-34 35W, FM only, less preamp... **$69.95**

100 Watts for 2 Meter HTs

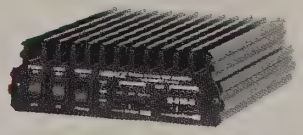
B-310G
$179.95

Power Curve – typical B-310-G output power								
Watts Out	25	50	75	95	100	100	100+	100+
Watts In	1/4	1/2	1	2	4	6	7	8

- 100 Watts out with all handhelds up to 8 Watts
- All modes: FM, SSB, CW
- Legendary MIRAGE Ruggedness
- 15 dB GaAsFET preamp
- Reverse Polarity Protection/SWR Protection

100 Watts Adjustable – HT or mobile

B-510G
$209.95



Use any 2 Meter HT or mobile up to 50 Watts and get the same 100 Watt power output.

Low noise GaAsFET preamps

High gain ultra low noise GaAsFET preamps for improving the reception of weak weak signals.

Selectable gain prevents receiver overload and intermodulation. 15 to 22 dB gain. Less than 0.8 dB Noise Figure. Automatic RF switching up to 100 Watts.

Choose *In-Shack* model or *Mast-Mount* model to reduce loss. Rugged die-cast enclosures.

KP-1/10M 28-30MHz; in-shack model **$129.95**
KP-1/6M 50-54MHz; in-shack model..... **$129.95**
KP-1/2M 144-148MHz; in-shack model..... **$129.95**
KP-1/220 220-225MHz; in-shack model **$129.95**
KP-1/440 430-450MHz; in-shack model **$129.95**

KP-2/10M 28-30MHz; mast-mount **$179.95**
KP-2/6M 50-54MHz; mast-mount..... **$179.95**
KP-2/2M 144-148MHz; mast-mount..... **$179.95**
KP-2/220 220-225MHz; mast-mount **$179.95**
KP-2/440 430-450MHz; mast-mount **$179.95**

We now have a

SECURE web site

Order on-line at www.aesham.com

Order toll-free: 1-800-558-0411

6:00 A.M. Pacific to 8:30 P.M. Eastern
Monday – Friday • Saturday to 6:00 P.M.

144/440 MHzAmp
45/35 Watt Dual Band

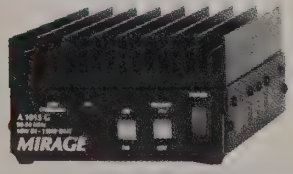
BD-35
$149.95

Power Curve – typical BD-35 output power								
Watts Out (2 Meters)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

- Works with all FM handhelds up to 7 Watts
- 45 Watts on 2 Meters/35 Watts on 440 MHz
- Auto Band Selection • Full Duplex Operation
- Single connector for dual band radios
- Reverse polarity protection
- Auto T/R Switch • "On Air" LEDs
- 5 x 1¾ x 5 inches • Mobile bracket

6 Meter 150W Amplifier

A-1015G
$349.95



FCC Type Accepted – The A-1015G is the world's most popular all mode 50-52MHz FM/SSB/CW 6M amp. Built-in switchable receive preamp. 150 Watts out for 10 Watts in. For 1 to 15 Watt transceivers.

VECTRONICS

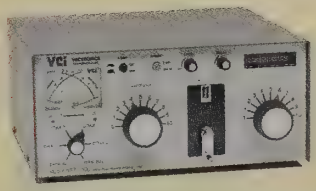
. . . the finest amateur radio products made!

VC-300DLP
$149.95

World's most versatile 300 Watt Antenna Tuner

You'll get everything you've ever wanted: • precise inductance control that rivals roller inductors • the ability to match any real antenna • full 1.8-30 MHz coverage • peak reading backlit Cross-Needle Meter • 8-position antenna switch • built-in 50Ω dummy load • finest components around and world class quality.

Legal Limit Roller Inductor Antenna Tuner with SSB Digital Bar Graph



HFT-1500
$399.95

The HFT-1500 has three continuously variable components -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted crank handle and a gear-driven 5-digit counter. Tune any antenna 1.8-30 MHz, lighted D'Arsonval Cross-Needle SWR/Wattmeter, 28uH roller inductor, 4:1 2.5 kW balun and 20 segment SSB Bargraph display.

More Fine Vectronics Amateur Products

AT-100 Tuned Active SWL Antenna **$79.95**
CK-200 Deluxe CW Keyer w/Curtis chip..... **$79.95**
DL-300M 300 Watt Dry Dummy Load..... **$44.95**
DL-650M 1500 Watt Dry Dummy Load..... **$74.95**
DL-2500 2500W Dry Dummy/cooling fan.. **$179.95**
VC-300M 300 Watt Mobile Tuner..... **$99.95**
VC-300D 300 Watt Tuner w/digital graph... **$179.95**
HPF-1 High Pass TVI filter 52-550 MHz..... **$24.95**
HPF-2 Deluxe high pass TVI filter..... **$29.95**
PM-30HF 1.8-60 MHz SWR/Wattmeter **$79.95**
PM-30UV 144/220/440MHz SWR/Wattmeter **$89.95**
LP-30 Low Pass filter, handles 1500 Watts..... **$49.95**
LP-2500 Low Pass Filter, 2500 Watts **$79.95**
PS-30F 25 amp power supply, 30A surge.... **$129.95**
PS-50F 35 amp power supply, 50A surge.... **$199.95**

See the Price Guide for a list of Vectronics Electronic Kits

MIRAGE

VHF/UHF AMPLIFIERS

Add a MIRAGE amplifier to your rig for 30 to 600 watts of BRUTE POWER! Models for 6 meters through 70 cm – Base, Mobile, Repeater or ATV operation • 12V DC • FM/SSB/CW modes • Continuous duty • 20dB GaAsFET preamp • Overdrive and High-temp protection • Remote control capability

Model	MHz	Max Input	Max Output	Amps	Pre-amp	Price
A-1015G	50-52	1-15W	150W	23	yes	$349.95
B-34	144-148	8W	35W	4	no	69.95
B-34G	144-148	8W	35W	4	yes	89.95
B-55G	144-148	10W	50W	5	no	109.95
B-215G	144-148	0.25-5W	150W	20	yes	339.95
B-1016G	144-148	0.2-15W	160W	25	yes	339.95
B-1030G	144-148	10W	300W	48	yes	619.95
B-2516G	144-148	20-35W	160W	25	yes	269.95
B-2530G	144-148	10-35W	300W	48	yes	619.95
B-5016G	144-148	20-60W	160W	22	yes	269.95
B-5030G	144-148	0.5-50W	300W	48	yes	599.95
B-310G	144-148	0.25-8W	100W	15	yes	179.95
B-320G	144-148	2.5-50W	200W	25	yes	399.95
B-510G	144-148	2.5-50W	100W	15	no	209.95
BD-35	144/440	1-7W	45/35W	7	no	149.95
C-22G	222-225	2W	20W	5	yes	154.95
C-211G	222-225	2W	110W	20	yes	299.95
C-106G	222-225	10W	60W	12	yes	214.95
C-1012G	222-225	10W	120W	5	yes	299.95
C-1022G	222-225	10W	220W	20*	yes	589.95
C-2512G	222-225	30W	120W	20	yes	289.95
C-2522G	222-225	30W	200W	42	yes	589.95
C-5022G	222-225	50W	200W	42	yes	579.95
D-15N	425-450	2W	15W	3	no	169.95
D-26N	430-450	2W	60W	12	no	244.95
D-1010N	430-450	10W	100W	15	no	354.95
D-3010N	430-450	30W	100W	20	no	329.95
D-1010ATVN	430ATV	10W	100W	20	no	369.95

*at 28VDC N denotes Type-N connectors

RC-1 **Remote Control Head** For most Mirage amps. Controls: Power and preamp On/Off, SSB/FM mode switch. 18' cable. 1¾" x 3¾" x 2½ **$45.95**

QUADRA SYSTEM Amateur band coverage: 160–15 and 6 meters • 1000W power out @ 220V AC 500W on 6 meters • (8) MRF150 power MOS FETs • Multi-function omni-glow LCD display • Automatic system monitoring with VSWR protection • Built-in high-speed antenna tuner • (2) RF inputs • (4) RF outputs • Automatic band switching with FT-1000D, FT-1000MP, FT-920 and FT-900 • (2) input voltages: 117VAC for 500W; 220V AC for 1000W • Separate amplifier and power supply units • 16¼" x 5⅜" x 16¼" (each) • 33 lb. amp; 26 lb. power supply **$3999.95**

MIRAGE

DOCKING BOOSTERS

Slide your handheld into a Mirage docking booster and it instantly becomes a powerful mobile or base!

- Boost your RF power to mobile or base station levels, up to 50W
- Replace your HT battery
- Becomes a secure and convenient HT holder

Mirage docking boosters have selectable HT voltages that let you use most handhelds old or new. Requires 13.8 VDC. You can place it on your dashboard or table or mount it securely with its mounting bracket and tilt it for convenient operation.

B-24-G **For 2m FM handhelds.** Delivers up to 50W output with just 0.5 to 8W input. Has 18dB GaAsFET preamp with on/off switch. Preamp On, On Air, and Transmit LEDs. Compact – 3¼" x 3¼" x 4¼". Choose adapter to fit your handheld* **$114.95**

BD-25 **For dual band FM HTs.** Delivers up to 45W on 2M & 35W on 440MHz with only 0.5-8W input. Mirage's *FullDuplexAMP™* lets you talk on one band & listen on the other band at the same time. Requires compatible HT. Automatic band selection. Frequency Band and Power On LEDs. Reverse polarity protection, On/Off switch. 3¼" x 3¼" x 5¼". Choose an adapter to fit your handheld*. **$164.95**

** See Mirage in the Price Guide for HT adapters, and also a listing of Mirage repeater amplifiers.*

PW-1 HF/50MHz All Band Solid State Linear amplifier. 100W of drive delivers 1KW PEP SSB and 1KW CW/RTTY output (100% duty cycle). Automatic band change. Built-in automatic antenna tuner for all amateur bands including 6 meters. Wide ALC adjustable range allows use with almost any rig. Removable control head, full break-in CW oper. Built-in 110/220VAC supply w/auto. input voltage selector. 14"w x 10⅝"h x 14⅜"d, 56 lbs .. **$4799.95**

Used & Demo Equipment lists

Updated regularly on the web. Check them out and order **On-line**

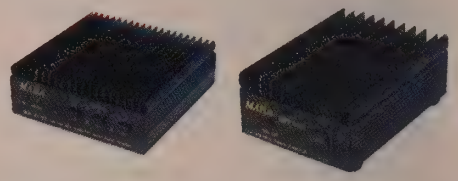
MAHA

DOCKING BOOSTERS

With the appropriate adapter, you can slide on & boost your ICOM, KENWOOD or YAESU handheld radio up to 50W. Forget about the battery pack, the booster will power the HT at 5W. Also works with ADI & RADIO SHACK HTX-202 .

MH-A301 2m FM, 5W in/50W out, 18dB GaAsFET preamplifier..... **$115.95**

MH-A302 **Dual Bander** –2m 5W in/45W out; 440MHz, 5W in/35W out..... **$165.95**



HT AMPLIFIERS

MH-A101 2m FM, 5W in/35W out..... **$69.95**

MH-A102 2m FM/SSB, 5W in/35W out, 15dB GaAsFET preamplifier..... **$89.95**

MH-A103 2m FM/SSB, 5W in/50W out, 15dB GaAsFET preamplifier **$119.95**

MH-A104 2m FM/SSB, 5W in/100W out, 15dB GaAsFET preamp, adjustable... **$229.95**

MH-A201 **Dual Bander** – 2m 5W in/45W out; 440MHz 5Win/35W out **$159.95**

SG-500 (52-96) **SmartPower Cube™** A fully automatic band switching, microprocessor controlled HF linear amplifier. Covers 1.6–24MHz, ideal for fixed, mobile, and marine operation Nearly indestructable! Cast-alum. enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components. 500W PEP output with 50-90W input; CW rating 500W output for 10 minutes, or unlimited with optional fan. 10–18 VDC @ 40A average (SSB), 90A peak, or CW. 6"h x 12¼"d x 11½"w, 21 lbs **$1169.95**

we have a SECURE web site at www.aesham.com

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

1.8-170 MHz SWR Analyzer™

The MFJ-259B

If you are serious about performance ... you Need one of these!

You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to try to borrow it!

MFJ-259B
$239.95

The MFJ-259B is a complete Ham radio test station including – Frequency Counter, RF signal generator, SWR Analyzer™, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Take the frustration out of getting your antennas properly tuned up for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more risking a heart attack running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The MFJ-259B is an all-in-one unit, with a built-in RF source so you can take it to the antenna, take one reading to get a complete picture of your antenna performance, and make all tuning adjustments on the spot.

Super EZ to use! Connect the feed line, set the bandswitch and tune the dial -- just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, 2-line LCD screen and side-by-side meters.

Read antenna SWR & Complex Impedance from 1.8-170MHz. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss in dB, length of coax and distance (in feet) to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The MFJ-259B has a built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning, and smooth reduction drive tuning.

Overall, Here's what you can do

- Find true resonant frequency of antenna.
- Trim dipoles and verticals.
- Adjust your Yagi, quad, loop and others, change antenna spacing and height. Watch SWR, resistance & reactance change instantly. You'll know exactly what to do, simply watch the display.
- Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum 1.8-170 MHz!
- Check SWR outside the ham bands without violating FCC rules.
- Take the guesswork out of building and adjusting matching networks and baluns.
- Accurately measure distance to a short or open in a failed coax. Measure length of a roll of coax, coax loss, velocity factor and impedance.
- Measure inductance and capacitance.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.
- Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

Take it anywhere

Fully portable, take it up towers, to remote sites, or on DX-peditions. It uses 10 AA or Ni-Cad batteries (not included) or 110 VAC with **MFJ-1315, $14.95.** Its rugged, all metal cabinet is a compact 4" x 2" x 6¾".

How good is the MFJ-259B?

Many manufacturers use them in their labs and on production lines – saving thousands of dollars in instrumentation costs.

plus, the MFJ-269 with E-X-P-A-N-D-E-D Frequency Coverage & Added Features

Analyzer Accessories

MFJ-66 **$19.95. Dip Meter Adapter.** Plug a dip meter coupling coil into your MFJ SWR Analyzer™ and turn, it becomes a sensitive, accurate dip meter. Set of two covers 1.8-170MHz.

MFJ-29C **$24.95.** ***Genuine* MFJ Carrying Case.** Tote the MFJ-259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils, adapters and accessories. Made of special foam filled fabric to cushion blows and deflect scrapes. Protect knobs, meters and displays from harm.

MFJ-39 **$24.95.** ***Genuine* MFJ Carrying Case.** Same as MFJ-29C except that it fits the MFJ-269.

MFJ-731 **$89.95. Tunable Measurement Filter™** Allows accurate SWR and impedance measurements 1.8-30 MHz in presence of strong RF fields. Has virtually no effect on measurements. Works w/all SWR analyzers.

MFJ-99 **$54.95.** Accessory Package for MFJ-259/B/249/B/209. Includes 29C carrying case, 66 dip meter adapter, 1315 110 VAC adapter. *Save $4.90!*

www.mfjenterprises.com

MFJ-269 SWR Analyzer™
Covers 1.8-170 MHz plus 415-470 MHz

Looks identical to and has all the features of the MFJ-259B PLUS...

- Covers 1.8 to 170 MHz plus **415 to 470 MHz**
- Built-in **CoaxCalculator™** -- calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antenna set-ups).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

New 1.8 to 170 MHz Range features

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω .

415 to 470 MHz Range features

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.
- Uses MFJ-39 Carrying Case

MFJ-269
$319.95

BIRD Electronic Corporation

43 THRULINE® Wattmeter Measures *incident* and *reflected* power in coaxial transmission lines with ±5% of full scale accuracy; insertion VSWR is less than 1.05. Comprised of a line section, and a direct-reading meter with expanded scales in 25, 50 and 100 units. Rugged, durable aluminum case.

Supplied with SO-239 Quick Change (QC) type connectors w/opt. N and BNC types available.

Optional plug-in elements provide a wide choice of frequency ranges from 2–1000MHz, with power levels up to 5KW from 2–30MHz and up to 1KW from 30–1000MHz. Select one or more elements now, add others as needed. 6⅞"h x 5⅛"w x 3⅜"d, 3 lbs..... Closeout **$276.95**

4431 THRULINE® Wattmeter Same as 43, has built-in variable RF signal sampler to provide adjustable low level signal sample for counters, scopes, analyzers ..... Closeout **$487.95**

43P Peak Reading Wattmeter Same versatile functions as the 43, but incl. switch selectable Peak Reading (PEP) capability. Uses same plug-in elements, QC connectors and accessories. Requires two 9V batteries ..... Closeout **$369.95**

Closeout

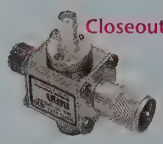
TABLE 1 Standard BIRD Elements

Power Range	Frequency Bands (MHz) 2-30	25-60	50-125	100-250	200-500	400 1000
5 watts	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
50 watts	50H	50A	50B	50C	50D	50E
100 watts	100H	100A	100B	100C	100D	100E
250 watts	250H	250A	250B	250C	250D	250E
500 watts	500H	500A	500B	500C	500D	500E
1000 watts	1000H	1000A	1000B	1000C	1000D	1000E
2500 watts	2500H					
5000 watts	5000H					

Closeout

TABLE 2 Low-Power BIRD Elements

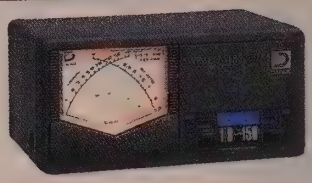
1 watt	Cat. No.	2.5 watts	Cat. No.
60-80 MHz	060-1	25-30 MHz	025-2
110-160 MHz	110-1	50-60 MHz	050-2
150-250 MHz	150-1	200-300 MHz	200-2
275-450 MHz	275-1	250-450 MHz	250-2
425-850 MHz	425-1	800-1000 MHz	801-2



Closeout **Variable RF Signal Samplers** Stand alone wide-range, THRULINE® RF coupling probes for spectrum analysis, RF signal observation on a scope, or frequency counting and control.

See Price Guide for BIRD accessory pricing

DAIWA industry co. ltd



CROSS-NEEDLE SWR/POWER METERS

CN-101 Covers 1.8 to 150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three Power Ranges: 5/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3⅞"d, 1½ lbs **$99.95**

CN-103M Same as CN-101, but covers 140-525MHz and rated at 200W. Two Power Ranges: 20/200W (RMS or PEP)..... **$99.95**

CN-410M Compact Meter For mobile or base use – covers 3.5-150MHz. Two power ranges: 15/150W forward and 50/5W reflected. Backlit meter shows forward and reverse power and VSWR simultaneously. SWR detection sensitivity: 3W mini. 50Ω impedance, SO-239 connectors. Mounting bracket included. 2¾" x 3"d x 3⅞ "d, 10 oz **$124.95**

CN-460M Compact Meter Same as CN-410M, but covers 140-450MHz **$124.95**

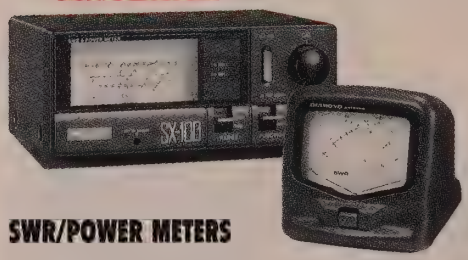
Bel MERIT

DX-405 Multi-function Multimeter *(left)* 10 functions/39 ranges • 3½ digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance and diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with lead holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb..... **$69.95**

DX-355 Digital Multimeter *(middle)* Designed for industrial heavy-duty (all current range fused) extensive overload protection • 0.25% DCV basic accuracy • Measure voltage, current, resistance, diode and freq. up to 20MHz • True RMS reading • Data hold • Auto Off • Tilt stand with lead holder • Protective holster • 4"w x 7.5"h x 1.5"d, 1.5 lbs..... **$74.95**

DM-80 Pocket Digital Multimeter *(right)* 3200 count • 32 segment bargraph • Auto/manual ranging • Auto power off • Data hold • Range • Voltage, AC/DC 450V • Current, AC/DC 300mA • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low batt. mark auto polarity • Carrying case incl. • 2"w x 4.1"h x 0.4"d, 3.2 oz..... **$34.95**

DIAMOND ANTENNA



SWR/POWER METERS

(left) Five models measure power and SWR with 5–10% of F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2½"h x 4"d, 2 lbs.

SX-100 1.6-60MHz, 30/300/3kW..... **$134.95**
SX-200 1.8-200MHz, 5/20/200 ranges..... **$94.95**
SX-400 140-525MHz, 5/20/200W..... **$114.95**
SX-600 Dual band, 1.8-160MHz and 140-525MHz, 5/20/200W ranges **$169.95**
SX-1000 Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W ranges..... **$214.95**

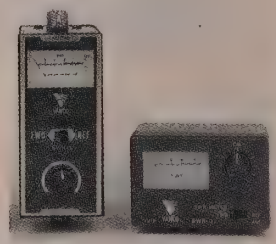
CROSS-NEEDLE SWR/POWER METERS

(right) Indicate forward and reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

SX-20C 3.5-30/50-54 & 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR .. **$89.95**

SX-40C 144-470 MHz (220 MHz with correction factor); 15/150W (3W minimum power) **$79.95**

VANCO™



LOW COST METERS

SWR-1 Field Strength or SWR Meter *(left)* Range: 3.5 to 150 MHz; Impedance: 52Ω; SWR: 1:1–3:1; Accuracy: 5%; Meter Sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2⅞"d, 14 oz..... **$19.95**

SWR-3 SWR Meter *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2½"x3½"x3", 6oz..... **$14.95**

YAESU

SWR/POWER METERS

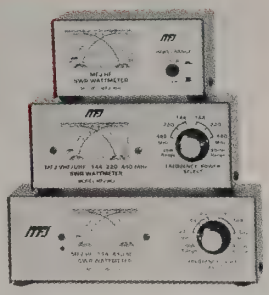
YS-60 Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.6 to 60MHz, up to 2KW. Ranges: 0/200 & 2000W. 50Ω impedance, SO-239 connectors. Requires 12V DC for lamps & internal circuits. 4¾"w x 2¾"h x 3½"d, 1½lbs..... **$129.95**

YS-500 Similar to YS-60, but covers 140–525MHz and has 4/20 & 200W ranges..... **$109.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ ENTERPRISES, INC.

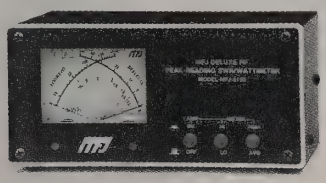
SWR/POWER METERS



864 *(bottom)* Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors, connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted cross-needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7¼"w x 2½"h x 2¼"d **$84.95**

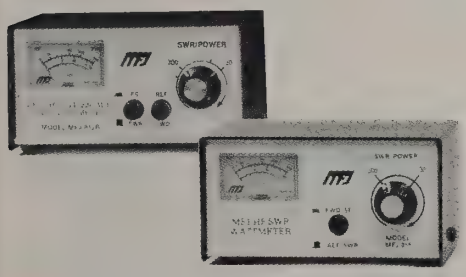
862 *(middle)* Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60 watts reflected. 5¾"w x 2½"h x 2¼"d **$54.95**

860 *(top)* Similar to the 864, but covers HF – 1.8 to 60MHz. Ranges: 30/300 watts forward and 6/60 watts reflected. 4½"w x 2¼"h x 3"d..... **$44.95**



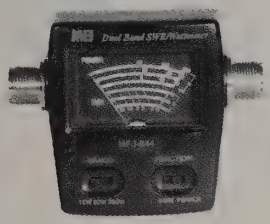
815B Features large 3" cross-needle meter. Gives accurate SWR and peak or average power readings from 1.8–60MHz. Ranges: 200/ 2000W forward and 50/500W reflected. Push buttons 12V DC for meter light. 7¼"w x 2½" h x 2¼"d **$79.95**

817 Looks & features similar to 815B but covers 144 & 440MHz bands. Power Ranges: 200/20 forward and 50/5W reflected. 7¼"w x 2½"h x 2¼"d... **$89.95**

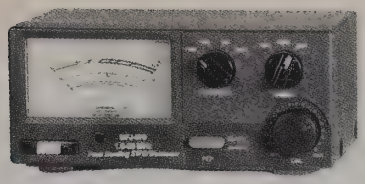


812B *(top/left)* Indicates forward and reflected power on 2M and 220MHz and SWR 14–220MHz, plus field-strength 1–220MHz. Ranges: 30/300W ranges. Measures only 4½"w x 2¼"h x 3"d... **$34.95**

816 *(bottom/right)* Indicates forward and reflected power from 1.8 to 30MHz. Ranges: 30/300W. Measures only 4½"w x 2¼"h x 3"d..... **$34.95**



844 VHF/UHF SWR/Power Meter Covers 144 and 440MHz and handles 200W. Measures SWR and Power in three ranges: 15, 60, and 200W. 50Ω impedance, SO-239 connectors. Insertion loss is 0.3 dB or less. Measures only 3¾"w x 3"h x 1¼"d. Easy to read multi-colored meter. Great to take along for those portable, HT or mobile rigs **$69.95**



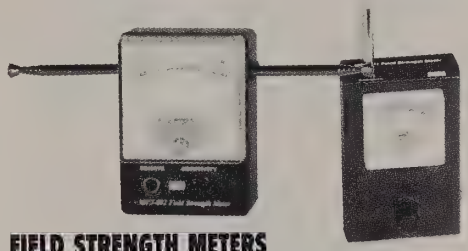
GrandMaster™ 3¼ x 1¼" meter, forward and reflected. Three ranges. 13.8V/110V. 7½"w x 3⅛"h x 4¼"d.

870 (HF Range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W **$124.95**

872 (HF/VHF Range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W **$94.95**

873 (VHF/UHF Range) Covers 125 to 525MHz. Power ranges: 5/20/200W..... **$104.95**

874 (HF/VHF/UHF Range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W..... **$159.95**



FIELD STRENGTH METERS

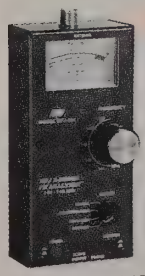
801 Super Compact Field Strength Meter *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its super compact size fits in the palm of your hand, only 2⅜"w x 3⅝h" x 1"d. Telescopic whip included **$19.95**

802 Bipolar Field Strength Meter *(left)* Dual whips are included, 2⅜"w x 4"h x1½"d **$39.95**

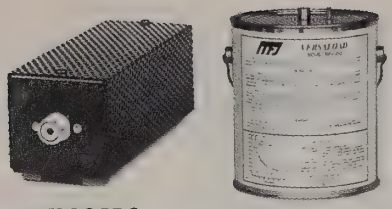
MISCELLANEOUS

850 Line Voltage Monitor *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2¼"w x 2¼"hx 1½"d..... **$19.95**

204B Antenna Bridge *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable - take it to an antenna site. Determine if an antenna is too long or too short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and tunable oscillator-driver. Requires 9V battery. Measures 4"h x 2"w x 2"d **$79.95**



224 2M FM SignalAnalyzer™ Measure signal strength over 60dB range; check and set FM deviation, measure antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Use scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Head-phone jack, battery (9V) check function. 4"x2½"x6¾"..... **$149.95**



DUMMY LOADS *(OIL FILLED)*

250 Versaload *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7¼"h x 6⅝" diameter ..... With oil **$59.95**

250X Same as above, but without oil..... **$39.95**

(DRY LOADS)

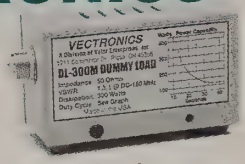
(left) Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

260C (HF/VHF) Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2½" x 2½" x 7" **$34.95**

260CN With type "N" connectors **$39.95**

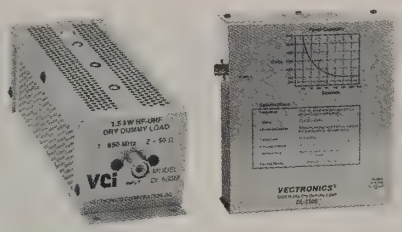
264 (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.95**

VECTRONICS



DUMMY LOADS

DL-300M Dry Dummy Load Simulates an accurate 50Ω antenna up to 150MHz. Test or tune up your transmitter without radiating a signal on the air. Power handling curve rated at 300W for 15 seconds, to 100W for 40 seconds. VSWR <1.3:1 at 150MHz. 5"h x 2"d x 2⅞ "h, 8 oz..... **$44.95**



DL-650M Dry Dummy Load *(left)* Good all the way up to 650MHz. Power handling curve is rated at 1500W for 10-seconds, down to 100W for 10 minutes. VSWR <1.3:1 at 500MHz..... **$74.95**

DL-2500 Dry load (High-Power) *(right)* A fan cooled heavy-duty load for up to 150MHz. Power handling curve rated at 2500W for 1 minute, down to 500W for 10 minutes..... **$179.95**

SWR/POWER METERS

PM-30HF Similar to pic. RMS or PEP forward and reflected power and SWR simultaneously. Lighted cross-needle meter. Covers 1.8-60MHz, 300/3000W ranges. 5⅝" w x 3½"h x 5¾"d, 1.2 lbs..... **$79.95**

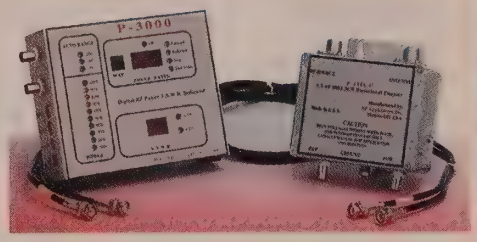
PM-30UV *(shown)* Same features as the PM-30HF, but covers 144, 220 and 450MHz bands **$89.95**

RF Applications, Inc.

www.rfapps.com

Affordable...

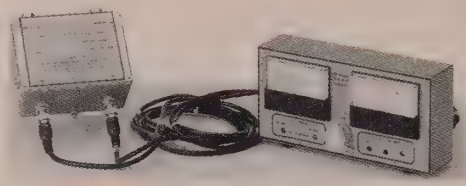
High Performance & High Quality RF Power Measurement Systems



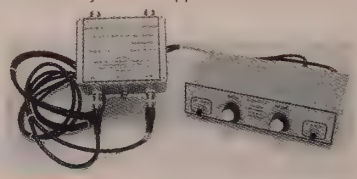
P-3000 HF Power and VSWR Indicator
Microprocessor based for fast, accurate power & VSWR readings from 1.8-30MHz & 15-2950 watts – without adjustments or calibration. *Three separate instruments in One:* Peak Digital Power Display, VSWR Display w/Alarms and 10-LED Instantaneous Power Bargraph. During high VSWR conditions a relay can interrupt the control line to linear to reduce chance of damage. Separate remote directional coupler locates up to 6' away. 50Ω input and output, SO-239 conn. Requires 12V DC @ 250mA. *Display:* 6½"w x 5¼"h x 2¼"d; *Coupler:* 4½"w x 3¾"h x 2¼"d, 6 lbs total. 5000W version also available by Special Order (**P-5000**) ... **$299.95**

VFD Wattmeters
Features a 2 line by 16 character vacuum fluorescent display, tuning and operate modes and a settable VSWR limit. Provides real time peak and hold display of your actual power and VSWR every transmit. The 65 element bargraph gives you better resolution than a meter, and you can select a quick update for the displayed power. The sensor uses large cores that will not saturate. This unit also features a settable alarm indication to let you know that the VSWR has exceeded a preset limit. **Display:** 5¾"w x 3"h x 2"d. **Coupler:** 4"w x 3½"h x 2"d.

VFD-HF 1.8 to 30MHz, 15 to 2955W **$249.95**
VFD-VHF 50 to 225MHz, 5 to 300W..... **$249.95**
Vanity option, VSWR alarm relay, and power monitor options are available directly from RF Applications at additional cost.



P-2000A RF Power & VSWR Indicator
For HF applications from 1.8-30MHz & up to 2000W RF output. It has an adjustable meter response time and uses the same remote coupler as the P-3000 unit. An adjustable VSWR setting and a relay are provided that can be used to automatically disable an amplifier under high VSWR conditions. *Display:* 8"w x 4¼"h x 2½"d; *Coupler:* 4½"w x 3¾"h x 2¼"d. 5000W version also available by Special Order (**P-5000A**) **$299.95**



P-2000CW RF Power/VSWR Indicator
Uses an audible Morse Code interface to report the values of forward and reflected power. The values are stored during and at the end of each transmission and can be reported via CW while on the air or after the transmission. If the VSWR exceeds a preset value, the operator is alerted with the Morse "V" character, and a relay can provide control to disable an amplifier, etc. Covers 1.8-30 MHz and is rated 5W to 2000KW. 12V DC. **$249.95**

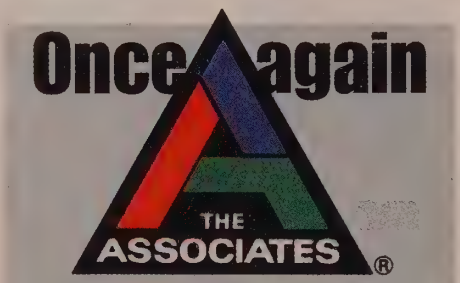
MIRAGE

Three models all measure RMS, peak forward and reverse power and SWR, directly without charts or calculations. Negligible insertion loss. Remotable coupler, SO-239 connectors. Requires 9V battery, or AC adapter. Low battery indicator. 5¾"x 4½"w x 5¾"d, 3½ lbs.

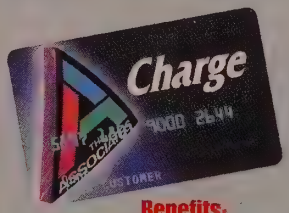
MP-1 1.8-30MHz; 25, 200, 2KW ranges.. **$219.95**
MP-2 50-200MHz; 50, 500, 1.5KW **$219.95**
MP-3 425-450MHz; 5, 50, 150W ranges. **$249.95**

Palomar Engineers

PCM-1 RF Current Meter
Measures current from 0.2 to 30 MHz. Clamp-on design allows check of: radial system for broken wires; antenna and currents on feedline, coax shields, and on wire up to ½" diameter. Ranges: 100ma, 1A, 5A ranges. Requires 9V battery. 6"w x 2"h x 2"d, 9 oz **$129.95**

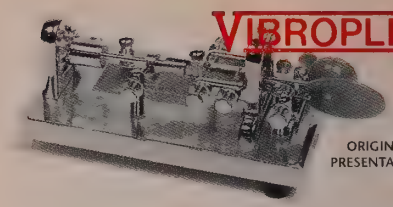


AES is bringing you instant approval on a revolving credit basis. Apply in person only.



Benefits:
- **Quick Approvals**
- **No Down Payment or Annual Fee**
- **Open Line of Credit for Future Purchase and Cash Advances**
- **Makes Budgeting Easier**

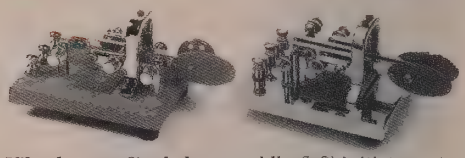
VIBROPLEX®



The **Original "Bug"**, c. 1904, is still manufactured today using tools and dies similar to those used by its inventor, Horace G. Martin. Designed for code speeds of 20-50+ wpm.

Standard model: Painted base and chrome top parts; **Deluxe model:** Polished chrome base and top parts with fine jewel movements for smooth operation; **Presentation model:** Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements; **Gold model:** Gold-plated base, chrome top parts.

110 Standard **$159.95**
105 Deluxe **$199.95**
100 Presentation..... **$269.95**
090 Gold..... **$299.95**

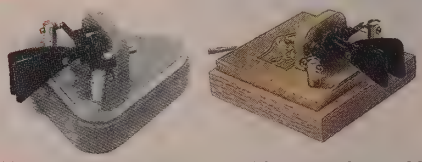


Vibrokeyers: Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

Standard: black base, chrome parts; **Deluxe:** chrome base and top parts with jeweled movements; **Presentation:** Iambic only, 24K gold-plated base and top parts with jeweled movements; **Gold:** 24K gold-plated base and top parts with jeweled movements.

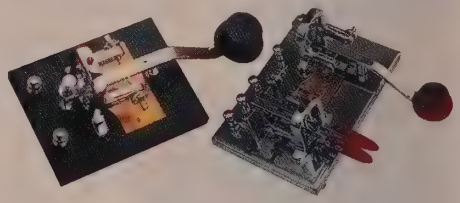
Vibrokeyer
120 Standard **$139.95**
115 Deluxe **$179.95**
113 Gold..... **$269.95**

Iambic
135 Standard **$139.95**
130 Deluxe..... **$179.95**
125 Presentation..... **$239.95**
123 Gold..... **$269.95**



145 Brass Racer Iambic Solid brass Iambic paddle mounted on a polished hardwood base..... **$99.95**

150 Square Brass Racer Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs..... **$139.95**



Straight Keys - Unique mechanical action, unlike any straight key ever manufactured.

155 Standard **$139.95**
160 Deluxe **$179.95**
153 Gold..... **$269.95**

Deluxe Double Keys - Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.

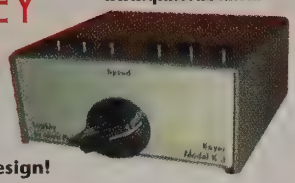
165 Straight key/Iambic..... **$319.95**
170 Straight key/Vibrokeyer **$319.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

LOGIKEY

www.qth.com/idiom

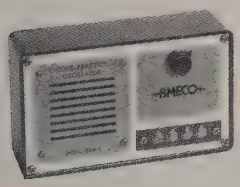
IDIOM Press



Full featured version of the famous Super CMOS III keyer design!

K-3 Non-volatile mem. • 6 editable messages, 1,530 characters • Messages can include programmed functions like automatic contest numbers, speed changes and pauses • Message can allow paddle inserted text & loop for continuous replay • Linear speed control – 5-60 WPM • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate other keyers, including Curtis "A" timing • Ultra Speed Mode for messages up to 99 WPM • Contest serial numbers 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs • 12V DC, < 0.1 amp • 4¼"w x 2¼"h x 4¾"d **$119.95**

HK-3 Hook-up kit for the K3 Includes Paddle-to-Keyer cordset; RCA-to-RCA keyer output cable and 2.5 mm DC power plug cordset for 12V **$10.95**



AMECO

OCM-2 Combination Code Practice Oscillator and CW Monitor Volume control, 3" speaker, and headphone terminals. Requires a code key and a 9V battery..... *Kit* **$19.95** *Wired* **$24.95**

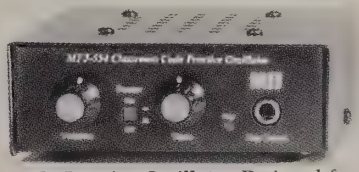
K-1 *(left)* Low-cost general purpose key w/phenolic base, adjustable tension & contact spacing. **$10.95**

K-4 *(right)* Deluxe high quality key. Polished brass base, shorting bar..... **$16.95**

MFJ ENTERPRISES, INC.

FOR LEARNING/PRACTICING CODE

414 Professional Classroom Tutor Features include LCD readout, printer port and audio tape recording output. Build and save three custom sets (16 characters each) for extra practice. Or combine these to give you 48 characters for using the KOCH method. Customize random words for practice, too. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer - has 1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly. Practice sending into the MFJ-414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8½"w x 2¼"h x 6"d .. **$189.95**



554 Code Practice Oscillator Designed for classroom use and abuse with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control. 400-1000Hz. On/Off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC power input jack. Required 12V DC. Rugged all-metal enclosure. 4¼" x 1½"h x 5"d **$79.95**

550 Telegraph Key..... **$7.95**

ACCESSORIES FOR 414 & 554

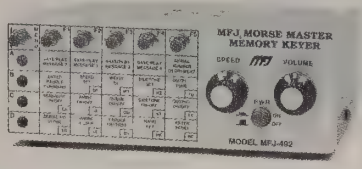
281 External *ClearTone™* Speaker. Use with above for loud volume **$12.95**

1315 AC Adapter..... **$14.95**

KEYERS

407D Deluxe Electronic Keyer Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery or MFJ-1312B AC adapter. 7" x 2" x 6"d **$69.95**

401D Econo Electronic Keyer II Similar to MFJ-407D but with external speed and volume controls, internal weight and tune controls. Uses 9V battery or MFJ 1312 AC adapter **$49.95**

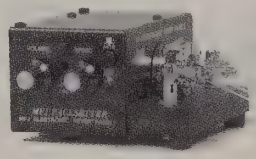


492 Menu Driven Memory Keyer No complex sequences. Save messages; enter iambic, semi-auto, handkey, message queue, paddle modes; select iambic A/B; Morse trainer; store starting serial numbers. Holds 192 characters in 4 mem., expand to 8K+ characters in 8 mem. battery back-up. Front panel controls for speed (5–100 WPM) and volume, sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6½" x 2½" x 6¼". **$89.95**

493 All features of the 492, but with 32K memory IBM keyboard input, serial port for computer interface and QSO simulator..... **$129.95**

451 Morse Keyboard Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC or MFJ-1312B 110VAC adapter **$99.95**

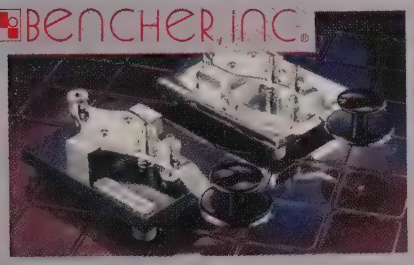
452 Morse Keyboard with 16 character LCD display. Comes with keyboard **$129.95**



422D Keyer-Paddle Combo Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4⅛"x2⅝"x5½"d..... **$154.95**

422DX Keyer only..... **$79.95**

BENCHER, INC.

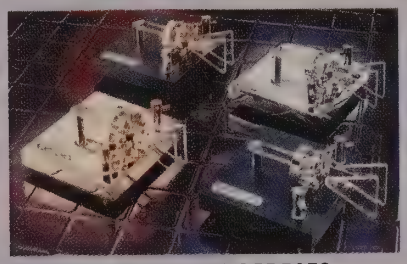


"RJ" HAND MORSE KEYS

A superb and responsive instrument which will bring new pleasure to traditional Morse keying. Features include oil impregnated sintered bearings at pivot points to impart friction-free pivoting and wobble-free vertical tracking. Stainless steel locking screw allows individual adjustment for arm height, tension and contact spacing. Black "Navy" style knob with removable skirt gives a solid feel with outstanding tactile feedback, Heavy metal base available in black texture or chrome finish with anti-skid rubber feet.

RJ-1 Black base..... **$95.95**

RJ-2 Chrome base..... **$110.95**



IAMBIC & SINGLE LEVEL PADDLES

The highest quality, offering precise control, reliability and years of trouble-free operations. Wide-range adjustment of tension and contact point spacing. Self adjusting needle bearings, gold-plated solid silver contact points, and polished acrylic plastic paddles. The main frame, contact post, spring posts and bearing ring are all precision machined from solid brass, then chrome or gold plated for durability and rich appearance. Heavy steel base with non-skid feet.

BY-1 Black base..... **$99.95**

BY-2 Chrome..... **$119.95**

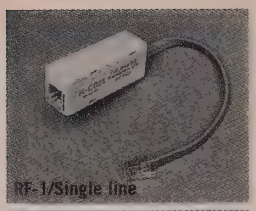
BY-3 Gold..... **$279.95**

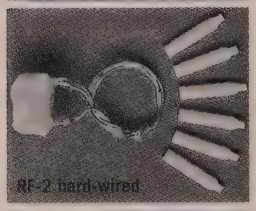
BY-4 Black and gold..... **$169.95**

UM Unified Microsystems

XT-4 CW Memory Keyer Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery **$79.95**

KC-4 Cable set for XT-4 ..... **$9.95**





K-COM

TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance. Fully assembled, with complete installation instructions.

RF-1 For single line equipment including wired and cordless telephones, answering and fax machines, modems, and others. Uses standard modular connectors **$16.95**

RF-1/2-LINE Correct filter for two-line telephone sets and multi-line, multi-station electronic key phone systems in business environments **$22.95**

RF-1/COILED For use when RFI enters thru coiled telephone cord between base and handset **$22.95**

RF-2 Hard-wired, provides a wide range of installation optional to add RFI rejection at a variety of physical and electrical locations in the system wiring; inside jacks, behind wall mounts, security systems **$10.95**

Stops Telephone RFI Caused by 3 to 30MHz Transmitters!

DCI DIGITAL COMMUNICATIONS

BANDPASS FILTERS

Install between your 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing signals you want to hear to pass through at full strength. Eliminate random squeals, squawks, beeps and strange voices from your UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Also effectively reduces spurious emissions on transmit.

• Hear desired signals even in crowded urban centers with high-powered commercial systems • Design: 2M/220MHz – four helical resonators with aperture coupling; 440MHz – four 1/4-wave linear resonators with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

146-4H Passband: 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors **$89.95**

145-2H Passband 144 to 146 MHz **$89.95**

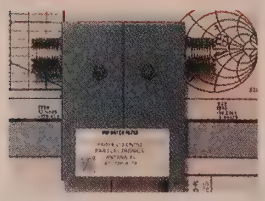
223.5-3H Passband: 222 to 225MHz; Loss 1 dB; Selectivity: –33dB at 233 3MHz and –28dB at 233 MHz. SO-239 silver-telfon connectors..... **$89.95**

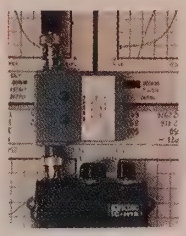
445-10C Passband: 440-450MHz; Loss 1dB; Typical selectivity: –47dB at 425MHz and –50dB at 456 MHz. Type-N silver-teflon-gold connectors..... **$109.95**

435-10C Passband 430 to 440MHz **$109.95**

Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order

PAR ELECTRONICS





INTERMOD FILTERS

Solve most intermod or front end overload problems from paging systems, etc. with these small, asymmetrical, 45 to 54dB notch filters. The design is centered on the offending pager spectrum of 152 to 153 MHz and works effectively with a loss of 0.5 dB or less and a 1.25:1 VSWR. Works with dual-band (2m/70cm) transceivers by providing a low-loss pass-thru of 70cm signals.

VHFDN152 2m base/mobile intermod filter, rated 50W, SO-239 connectors, 2"h x 1"d x 2½"w. **$62.95**

VHFTN152-158 **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w..... **$82.95**

VHFDN152HT 2m intermod filter for handhelds BNC connectors, 20W. 1½"h x ¾"d x 2"w... **$68.95**

UHFDN450 UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m .. **$62.95**

UHF-12 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end **$9.95**

MFJ ENTERPRISES, INC.

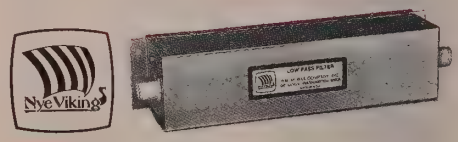
IntermodFighter™ Eliminate intermod in your 2M HT or mobile station. Three high-Q bandpass filters and two L-sections give razor sharp selectivity to knock out Interfering signals below and above 2M.

713 Has BNC connectors for use HTs. Self-contained, and uses a 9-volt battery. To eliminate intermodulation, remove the rubber duck and replace it with the MFJ-713. Re-install the duck – no more intermod! RF tight, rugged aluminum case. **$59.95**

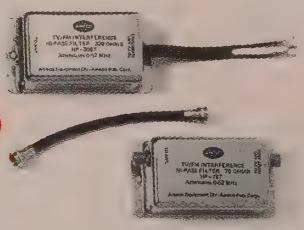
714 For mobile transceivers – install between rig and antenna. SO-239, requires 12V DC..... **$59.95**

704 50Ω **Low Pass Filter** Install between HF transmitter and antenna to reduces TVI from harmonics that fall in the TV band. Handles 1kW from 1.8 to 30MHz **$49.95**

711 75Ω **High Pass Filter** Install at TV or VCR antenna input to reduce or eliminate interference from HF transmitters operating up to 30MHz..... **$24.95**



020-001 **Low Pass Filter** Install between transmitter and antenna to reduce or eliminate TVI caused by harmonics from transmitters operating from 1.8 to 30MHz Rated 2KW, 5KW SSB peak. Over -65dB attenuation above 57MHz. SO-239 connectors..... **$56.95**



High Pass Filters Stop TV, FM and VCR interference caused by harmonics or overload from HF amateur radio transmissions, etc. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

HP-300T (300Ω) or **HP-75T** (75Ω) .....ea. **$12.95**

RF Inquiry

HI-Q Common-Mode™ Filters For tough RFI problems. Lowpass filters eliminate harmonic-type interference but are not capable of filtering out "Common-Mode" (differential noise energy transfer between transmitter and ground including stray capacitance). For cleaner signals, add an RF Inquiry filter.

• Operating Frequency: 1.8-70MHz • Common Mode Attenuation: -50 to -60db below 250MHz • Insertion Loss: Less than 0.1dB • Impedance: 50Ω • Connectors: SO-239 teflon

CF250E-UHF 250W, 25 x 255mm, 0.5 lb **$89.95**

CF5KV-UHF 5kW, 54 x 300mm, 1.3 lb . **$124.95**

VECTRONICS®

LP-30 *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power .. **$49.95**

LP-2500 Rated for 2.5KW continuous..... **$79.95**

HPF-1 *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload and harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω, but baluns and Type-F connector are supplied for 75Ω **$24.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ ENTERPRISES, INC.

112 Dx'ers World Map Clock and Calendar Pushbutton selection to highlight and show the Month, Day and 12/24 hour local time in 25 world cities. Large 1/2" LCD readout, alarm function. Tilt bracket, lithium battery backup. 5¼"w x 3¼"h x ⅜"d **$24.95**

114B Giant LED 24/12 hour clock Has four HUGE 2.3" high digits. The 12 or 24-hour display format is visible 50 ft. away or more! Operates from 110VAC with battery back-up feature. 6½"h x13"w x 1"d..... **$59.95**

118 Jumbo LCD™ 24/12-hour clock 1.25" high with high contrast LCD numerals. Shows year, month, date and day in four different languages. Includes 100 year calender and flip stand. Uses one "AAA" battery. 5¾"h x 3⅜"w x ½"d..... **$24.95**

Small 24-hour Clocks: A Dual Clock with separate UTC and local time displays, and a Single Clock with 24 hour time only. Heavy brushed aluminum frame, 5/8" high LCD numerals, sloped face. Flashing seconds colon, battery included.

107B Single Clock, 2¼"w x 1"h x 2"d..... **$9.95**

108B Dual Clock, 4¼"w x 1"h x 2"d **$19.95**

116 24 or 12 Hour LED Clock Switchable 24 or 12 hour display. Large, red 5/8" LED digits. Nine minute ID timer, loud alarm. Operates from 110VAC with battery back-up. Compact, 4½"w x 2"h x 4"d..... **$14.95**

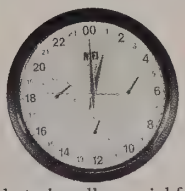
152 ThermometerClock™ Shows outdoor/indoor temperature & time. Huge LCD multiple display shows 12/24 hour time and Celsius/Fahrenheit. Automatic daily update of min/max temperature readings and memory function that recalls readings during a selectable period. Wall mount or desktop display. Includes outdoor sensor, 10' of wire, "AA" batteries. 5"h x 2⅜"w x ⅝"d" **$24.95**

119B GIANT display™ 12/24 Hour Calendar/Clock Size is 8½" x 9" – easily visible from 15 to 20 feet away. Shows 12 or 24 hour time, digital calendar (year, month, date, day), and Celsius or Fahrenheit temperature. White and silver speckled – attractive for the shack, office, police station, fire house, etc. Runs on a "AAA" battery, included..... **$49.95**

120 Monster Display ATOMIC Clock Self-calibrated from signals transmitted from the U.S. Atomic Clock in Fort. Collins, CO Shows 24/12 hour time, indoor temp. and relative humidity. Size: 8"h x 10"w x ¾"d (displays 6½"w x 2"h) – visible 20' away. Wall or desktop **$69.95**

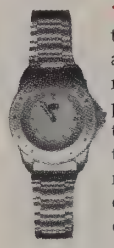
115 WORLD Map 24 hour Quartz Wall Clock Set it to GMT and you'll know what time it is in designated areas of the world any time of day. Premier cities outline the trim of the 12" diameter. Operates on single "AA" battery (not included).. **$24.95**

105C 24 Hour Quartz Wall Clock Black, 10" diameter face, sweep second hand. Uses one "AA" battery **$19.95**



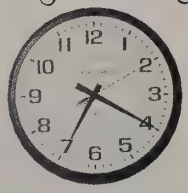
125 DXer's Dream 24 hour Quartz Wall Clock 12" diameter face shows highly visible, 24 hour format with smaller day, date and 12 hour indicators. All dials set independently to handle special formats. Single "AA" battery (not included) **$29.95**

126 12 Hour Quartz Wall Clock A beautiful Quartz accurate wall clock with a clear, clean and highly visible 12 inch diameter face that's easily seen from 15-20 feet away. Features 12 hour digits on a clean, white face, with a 24 hour trimline reversed in a handsome green and including red stop points and seconds digits. Operates for long periods on a single "AA" battery (not included)..... **$24.95**



181 DXers Watch Check 12/24 hour time around the world. By noting day and night around a rotatable bezel, estimate which bands are open to different parts of the world – even estimate best times of gray line propagation. It features a highly accurate Japanese quartz movement and NiteGlo™ hands. World cities encircle its world map face to indicate zones. Adjusts to fit **$39.95**

Benjamin Michael Industries INC.

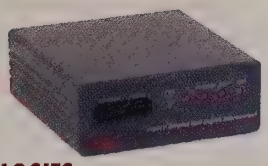


972A *(left)* Battery operated 12-hour time quartz controlled clock with sweep-second hand. Huge 12" dial allows excellent visability in large rooms. Black textured case and clear glass crystal. Uses one "AA" battery. 14" diameter x 1¾" deep..... **$28.95**

973A *(right)* 24-hour version of 972A **$49.95**

972AD 14" dia., 12 and 24 hour format wall clock, sweep-second hand. Uses "AA" battery **$32.95**

CES Communications Electronics Specialties, Inc.



WIRELESS TECHNOLOGIES

4700VP Telephone Interconnect Simplex or half duplex patch • True DTMF regeneration • 25 speed dial locations • Full remote "over-air" programming • VERATEC smart sampling VOX enhanced protocol or simple VOX control • Auto redial • Comprehensive toll restrict with override code • Call limit timer • Local programming • Auto setup • CW-ID • User programmable ID code • Time-out timer/beeps • Reverse patch ring • Repeat audio • Busy channel inhibit • CTCSS logic input • Tone dialing/multi-country pulse • 1½" x 4" x 4"..... Special **$169.95**

SDI-50 Automatic Simplex Interconnect Gives telephone access to handhelds and mobiles. Remotely programmable from any DTMF phone. Converts base stations to remote station accessible from any phone. VOX-enhanced sampling. Automatic CW ID. Interface cables included. 14¼"w x 8¾"d x 11¾"h, 3¾ lbs..... **$469.95**

CSI® Connect Systems Inc.

Fully automatic interface between an FM base radio and phone line to initiate and receive phone calls in a mobile or on an HT without assistance. The CS-800 and CS-900 each contain powerful microprocessor controlled features such as: 90 memory speed dialer • Redial • Built-in programming keyboard and digital readout • Remote base mode • Regenerated tone or pulse dialout • CW ID • Toll restrict

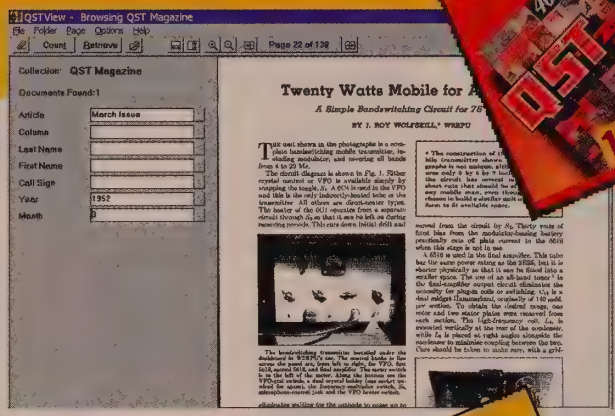
CS-800 Full Duplex Interconnect Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12-15 VDC. 7⅞"w x 7½"d x 2"h, 2½ lbs **$359.95**

CS-900 Control Station Simplex Interconnect For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC and DOC approved. (Transceiver switching speed does not affect performance) 12-15VDC 7.9"w x 7.5"d x 2"h, 2½ lbs..... **$359.95**

We accept I.M.P.A.C.® Government Credit Cards

"With ARRL CD-ROM Collections, you have information at your command!"

QST View



Imagine having back issues of ***QST*** magazine at your fingertips! Each *QST View* CD-ROM includes all the **ads, articles, columns** and **covers**—scanned to provide a black-and-white image that can be viewed on your computer screen or printed.

Every Page. Easy-to-use software included on the CD allows you to:

- **search for articles by title and author**
- **select specific year and issue**
- **browse individual articles or columns**

Microsoft *Windows* required

QST View CD-ROM sets

Years	Order No.
1970-74	108
1975-79	107
1980-84	106
1985-89	105
1990-94	104

ARRL Periodicals CD-ROM

ONLY **$39.95** PER SET

An entire year of reading on one space-saving CD-ROM!

- **SEARCH** the full text of every *QST*, *QEX* (*the Forum for Communications Experimenters*) and NCJ (*The National Contest Journal*) published during one year.
- **SEE** every word, photo, drawing and table—including color images!
- **PRINT** what you see.

Requires Microsoft Windows

ARRL Periodicals CD-ROM sets:

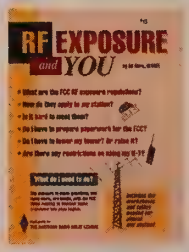
Year	Order No.
1999	266
1998	263
1997	259
1996	257
1995	254

JUST $19.95 PER SET!

GENERAL

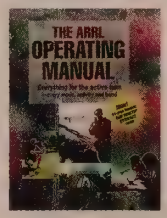
2000 Radio Amateur's Handbook, 77th edition
1200 pages of basic and advanced radio theory. Plenty of how-to information and illustrations. Software can be downloaded from the ARRL Web site or the League's *Hiram* BBS ..... ARR 100 **$32**

"Welcome to Amateur Radio"
Looking for a hobby where you can communicate locally or around the world through satellites for free? Learn if amateur radio could be for you with this booklet..... KEN PRIMER **50¢**



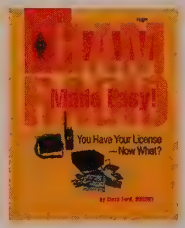
ARRL RF Exposure & You
Explains how to meet the FCC requirements using tables, graphs and worksheets to guide you through the process. If it turns out you aren't meeting new requirements, this book suggests what to do..... ARR 258 **$15**

2000 Radio Amateur's Handbook CD 4.0
Complete text of the 2000 Handbook • Enhanced image viewer with auto-sizing feature and thumbnail print preview allowing easy adjustments • Template packages as PDF files and Acrobat Reader included to allow viewing/printing • "Search the Index" feature allows you to type a word and see matches • URLs in text launch your browser • Microsoft Windows required .... ARR 101 **$39.95**



Operating Manual
The best one-stop book of operating information that is available..... ARR 240 **$25**

Now You're Talking
Used by 1000's of hams to study for the first license level exam ..... ARR 236 **$19**



Ham Radio Made Easy
Practical advice you can use right away. Gets you on the air quickly and painlessly whether you're into repeaters, packet or anything else..... ARR 182 **$15.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Hints and Kinks
Want to improve your station's performance or solve a problem? This is the book!..... ARR 187 **$12**

QRP Power
Learn about low power transverter design, transceivers, transmitters & more ..... ARR 256 **$12**

Log Book
This universal log suits all amateur radio operations, DXing contests, rag-chewing, 8½ x 11" ARR 201 **$5**

Minilog Log Book
For portable/mobile operation, 6½ x 4" ARR 205 **$4**

Grid Locator Atlas
A must have for all contesters ..... ARR 180 **$5**

2000 Radio Amateur Callbook CD-ROM

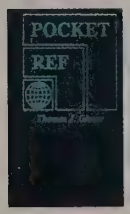
Access callsigns, names and addresses of more than 1.5 million listings worldwide covering more than 250 countries, islands and dependencies.

FEATURES
- Amateur radio prefix maps
- QSL manager listings
- Print program with multiple entries to customize a mailing label or logging format
- Windows or DOS platform for US and International data retrieval
- Windows driven by mouse; DOS via menu
- Data display by callsign, last name, city, license class issue and expiration date
- Morse code sound output to PC speaker
- Search: U.S. data by callsign, last name, county, city and zip; International data by callsign
- Search clubs, military and silent keys
- US data includes time zones, latitude/longitude and area codes ..... RAC 087581 **$49.95**

The New Shortwave Propagation Handbook
A "must read" for amateurs, shortwave listeners or any radio communicators who need to make the most productive use of radio spectrum, regardless of sunspot cycle...CQX SHORTWAVE **$19.95**

The "Grounds" for Lightning and EMP Protection

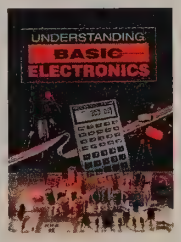
Written in a non-technical manner so anyone can understand and install appropriate protection/ground systems to guard their communications equipment against adverse pulses ..... PLY GLEP **$20**



Pocket REF
Chapters on air and gas, carpentry, chemistry, computers, electricity, math, hardware, plumbing, steel and materials surveying, welding, general information and more. 100's of tables and charts, 1000's of conversions. Everything you need to know! SEQ POCKETREF **$9.95**

CQ Ham Radio Calendars
15 months of pictures taken by pros and loaded with helpful info. Includes contest dates, moon phases, meteor showers and holidays. Use from January 2000 thru March 2001.
The Classics Calendar is full of beautifully photographed vintage ham equipment. Each month you'll reminisce about radio history including Johnson, National, Gonset, Collins.
The Amateur Radio Calendar has wonderful photos of stations, antennas and well-known Amateur personalities. Everything from exotic moonbounce arrays to a classic '50s station.
Classics Calendar..... CQX RCC2000 **$9.95**
Amateur Calendar ..... CQX ARC2000 **$9.95**

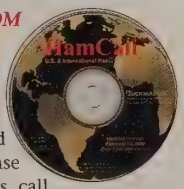
Understanding Basic Electronics



For beginners and those who want to brush up on electronic principles. Clear, simple explanations and loaded with illustrations ..... ARR 328 **$20**

FCC Rule Book
Complete guide to all FCC regulations pertaining to amateur radio ..... ARR 160 **$12**

Buckmaster HamCall CD-ROM for IBM PC Compatibles



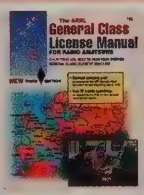
Updated Frequently! Search over 1.5 million listings by name, address, city, state/ province, zip, county, country and license class. Also displays license issue date, expiration, previous call and class, area code, e-mail address, URL, county, time zone, lat/longitude, grid square, beam heading and distance. Other features: DOS, Windows 3.1, 95 and 98 compatible • Exten-sive international listings • Label printing routine • Over 4,000 photos and QSL cards • Interfaces with most logging programs • Calculates beam heading ..... BUC HAMCALL **$50**

Walnutcreek QRZ! Ham Radio CD • v 10
Brings over 1,000,000 callsigns from stations around the world to your fingertips. This edition lists several new countries including: Egypt, India, Malta, Namibia, New Zealand and Pakistan. Includes the latest FCC listings • Over 1,000,000 callsigns • Over 95,000 e-mail addresses • Over 1,600 amateur radio shareware programs • Morse code training software • Radio and scanner mods • On-line FCC exam training software • Computer radio control programs • Over 1,500 QSL cards w/built-in viewer • Supported by most logging and contest programs • Compatible: Windows 95/NT, Windows3.11, MS-DOS, OS2, Linux, and most UNIX ..... WAL HAMQRZ **$29.95**

CQ Getting Started in Ham Radio
A fast-paced video intro to the fascinating world of ham radio. CQ's experts show how to select equipment, which bands to use, how to use repeater stations for improved VHF coverage, the importance of grounding and the basics of soldering. Get the most out of your station, whether it's home-based, mobile or handheld..... CQX HAMVIDEO **$19.95**

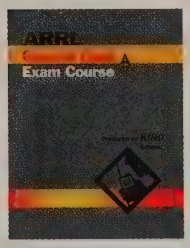
STUDY GUIDES

All study material information is the latest as of March 10, 2000. Call AES for up-to-date information before placing an order.



General Class License Manual
All study material needed for the test ARR 171 **$14**

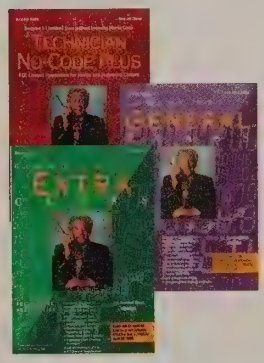
Extra Class License Manual
Complete source for test material..... ARR 156 **$12**



ARRL Ham Radio License Exam Course Series
Learn the information needed to pass Technician, General and Extra licensing exams using text, videos and reviews. **See Price Guide**

Ameco FCC Test Manuals

Editions incorporating FCC amateur test preparation requirements. Separate manuals available for all license classes including No-Code Tech. Examination questions, with corresponding multiple choice answers..... **See Price Guide**



The Gordon West book series include test questions, answers, charts, diagrams and explanations of correct answers.

No-code Tech Plus
W5Y GWTM **$12.95**

General
W5Y GWGM **$11.95**

Extra Class
W5Y GWEM **$11.95**

No Code Technician Amateur Radio Licensing Seminar Video

Become a licensed ham operator without Morse Code. Easy-to-follow training course teaches what you need to know to get your Technician ticket. 88 min.. W5Y NCVP **$31.95**

W5YI Amateur Radio License Computer-aided Instruction Software
Learn at your IBM/compatible PC! Nine 3½" and 5¼" disks cover all written and Morse code exams — Novice through Extra. Review all 2,000 questions, take sample exams, learn Morse code, build telegraphy speed and more! Free Bonus – Complete Part 97 FCC Rule Book.
No Code License ..... W5Y NCSW **$34.95**
No Code thru Extra Class ..... W5Y HOS **$39.95**
Tech, Tech Plus, General ..... W5Y TPG **$49.95**
General Class Upgrade ..... W5Y GUS **$34.95**

Kenwood EZ-PASS No-Code Tech Study Guide
Make a Personnel Connection provides a great method of learning about Amateur Radio. Works with Windows95, the package provides test questions for both the Novice and Technician class FCC licenses. Provides full graphics. The package uses the "Welcome to Amateur Radio" primer along with the most comprehensive full color Amateur Band Charts available. Includes a $10 certificate redeemable when purchasing a Kenwood radio as your first rig. . **KEN EZPASSWIN95 $34.95**

Theory Tapes by Gordon West, WB6NOA
Novice Written Theory,2 tapes..**W5Y GWNW $9.95**
Tech Written Theory, 2 tapes.... **W5Y GWTW $9.95**
Gen. Written Theory, 2 tapes... **W5Y GWGW $9.95**
Extra Written Theory, 4 tapes. **W5Y GWEW $19.95**

Morse Code Test Preparation
Code Teacher 0-5 wpm..... **W5Y GWNT $9.95**
General Class Code, 5-14 wpm . **W5Y GWGT $9.95**
Extra Class Code, 12-24 wpm .... **W5Y GWET $9.95**

Radiotelegraph Training Courses
Each 6-tape course prepares you to pass Novice, General or Extra Class exams • "Gordo" voice instructions • Rapid Farnsworth method • Plain language and random • Lots of humor!
For Beginners, 0-7 wpm **W5Y GWN6 $29.95**
For Speed Building, 5-16 wpm **W5Y GWG6 $29.95**
For Adv Telegra., 10-28 wpm ... **W5Y GWE6 $29.95**

Your Introduction to Morse Code and Increasing Your Speed Series
This cassette tape series from ARRL will teach you to copy Morse code in order to pass the Novice or Technician Plus class license, plus help you increase your speed up to 22 wpm.
First tapes incl. plain-language practice text & practice Morse code exams using the format of a typical amateur contact. The rest of the series contains Morse code practice in graduated steps from 5-22wpm..... **See Price Guide**

Ameco's complete Morse Code Instructor for IBM PC/XT/AT or compatible
Menu-driven, over 18 options, on-line "help" screens. Generates random charac., numbers, punctuation & QSO's. Similar to FCC/VEC exams. Ideal for beginners ..... **AME 107PC2 $29.95**

SPECIAL INTEREST

ARRL Weather Satellite Handbook
Types of satellites currently in orbit and how they operate • How to buy or build weather satellite receivers and antennas • How to build an interface to view images received from satellites or shortwave WEFAX on a PC ..... **ARR 342 $20**

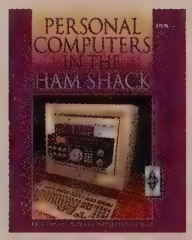
Radio Amateur's Satellite Handbook
A beginners guide to satellite operating, tracking and antennas. Detailed appendices and glossary ..... **ARR 264 $22**

Satellite Anthology 5th edition
A compilation of QST articles dealing with satellites like Amsat-Oscars 10 and 13, Russian RS series and Microsats **ARR 277 $15**

LOGSAT PRO Satellite Tracking Software
If it Orbits the Globe Logsat Can Track it! Track hundreds of satellites in dozens of windows. **Features:** KANSAS CITY TRACKER support • Complete multitasking • Unlimited number of satellite windows can be opened at the same time • Voice alarms when satellite window becomes visable • 5 map projections, high or low resolution for 486DX2 and Pentium PC's or slower 386's • 3D antenna radiation diagrams can be displayed • On-line help • Includes The Satellite Encyclopedia. **Minimum Requirements:** Windows® 3.1/95/NT compatible • Mouse or compatible pointing device • Standard keyboard • 286 processor • 4MB RAM • 15MB hard disk space. **Optional:** PC compatible sound card with speakers • 486 with 32MB RAM • Kansas City Tracker rotor interface ..... **LOG LOGSATPRO $69.95**

Getting Started in Amateur Satellites
Learn how veteran operators set up satellite stations. Find out how to locate and track ham satellites with ease. Watch as operators access current satellites and contact far ranging stations around the world. This video is filled with easy to understand advice that can't be found anywhere else .... **CQX HAMSATVIDEO $19.95**

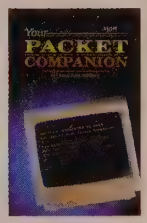
Practical Packet Radio
Everything you need to know including setting up a station, getting on DX packet cluster, & others ..... **ARR 253 $15.95**



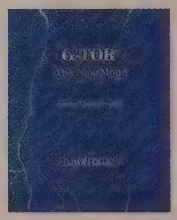
Personal Computers in the Ham Shack
Covers every ham application of the personal computer: databases, station control, contesting, logging, and more..... **ARR 248 $15.95**

CQ Getting Started in Packet Radio
Help de-mystify the exciting, but sometimes confusing, world of packet radio. Learn how to get started using your computer on the radio. Included are step-by-step instructions on making packet contacts and using packet bulletin boards, networks and satellites ..... **CQX PACKETVIDEO $19.95**

Pocket PC REF
Hard to find information on IBM PC's – ASCII codes, numeric prefixes, video standards, decimal/hex conversions, printer codes, error codes, I/O pinouts, memory & address maps, modem commands and switch settings, scan codes, floppy drive types, CPU types, DOS history .... **SEQ POCKETPCREF $14.95**

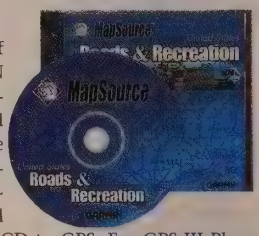


Your Packet Companion
Great first book for answering packet questions ..... **ARR 358 $10**

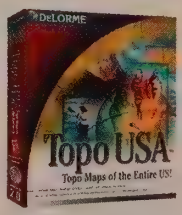


Kantronics G-TOR™ Book
Collection of previously published articles, description of G-TOR protocol & charts **Closeout**
KAN G-TORBOOK $9.95

Getting on Track with APRS
APRS, the Automatic Packet Reporting System, is an integration of packet radio mapping graphics and GPS into a single program for real time position tracking and reporting via radio. This book is a hands-on guide to installing and using new map based tracking systems .... **ARR 175 Closeout $14.95**



MapSource CD
Provides owners of compatible GARMIN GPS units with a variety of maps they need to get where they are going. Using a computer and MapSource software, enjoy high-speed transfer of maps from CD to GPS. For GPS-III Plus, e-Map Deluxe & NavTalk **GAR 0101021500 $99.95**

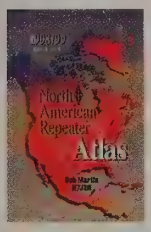


TOPO USA™
From the maker of *Street Atlas USA* – now hikers, bikers and outdoor enthusiasts can preview topographic terrain in all 50 states and plan the perfect outdoor adventure. Profile hikes and backroad trips for elevation, distance and degree of difficulty using the cross-sectional view. Select 3-D or 2-D views. Create on-road and off-road routes. Print detailed color topographic maps. Works with the DeLorme GPS Receiver, 3Com®, Palm Computing® and popular Windows® CE handheld computers ..... **DEL TOPOUSA $99.95**

2000/01 Repeater Directory
More than 20,000 listings for voice and digital repeaters and propagation beacons located in North, Central and South America. Lists more than 500 beacons from 14 to 24 GHz, band plans, tone chart, committees, clubs and more! ..... **ARR 271 $8**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

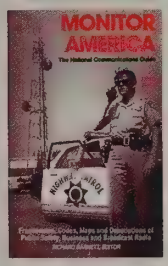
Passport to Worldband Radio
2000 SW listening guide containing data on every international broadcast station; names, locations, freq., times, coverage, target area, transmit power and more..... ARR 246 **$19.95**



North American Repeater Atlas
Repeater maps for all 50 states, Canadian provinces, Mexico, Central America and the Caribbean..... ARR 225 **$12**

CQ Getting Started in DXing
Top DXers share their experience with equipment, antennas, operating skills and QSLing. You'll see hams work rare DX around the world. This valuable information gives you the competitive edge needed to master DXing ..... CQX DXINGVIDEO **$19.95**

ARRL TravelPlus for Repeaters™
Locate repeaters along any route and access data in ways never dreamed of. Quickly find info as needed to pre-program a rig or take along a list of repeaters for the full trip. Find repeaters within a specified range on selected bands. Change ranges along routes and specify locale • Print maps/lists based on route • Customize info • Locate open repeaters and those w/autopatch • Use a GPS rx and laptop with TravelPlus to locate repeaters near current location or to return home • Save route and repeater list files for a reference or for linking routes • Export lists for use with compatible software ..... ARR 323 **$39.95**



Monitor America
A complete listing of public safety and business radio communications of almost every community in the nation. Includes maps, tone codes and repeater input/output frequencies. Listings of AM and FM radio stations with frequencies and formats. Race car teams, sections of *Disney* and other places **$29.95**

CQ Getting Started in Contesting
Whether a newcomer or experienced veteran, this video is for you! Get advice and tips from some successful competitors: Ken Wolff, K1EA; Dick Newell, AK1A; and CQ's own, John Dorr, K1AR. Explanations of jargon, tips for beginners, how to compete from a small station, operating secrets from "pros" and live QSOs..... CQX CONTESTVIDEO **$19.95**

VHF Amateur Radio
Six meters and up for the non-technical ham. Covers all types of VHF propagation and long range DXing, repeaters, moonbounce, amateur satellite communications, techniques, coaxial tansmission lines, VHF antennas, interference types & filters ..... RAC 087050 **$13.95**

CQ Getting Started in VHF
An ideal introduction to VHF. See demonstrations of the latest radios. Also, learn about repeater usage as well as the more exotic VHF operating modes. Whether interested in packet, satellite or simply using your local repeater.. CQX VHFVIDEO **$19.95**

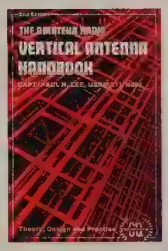
UHF/Microwave Projects Manual
Volume 2 of practical projects including microwave antennas, transverters, noise measurements and more. Includes a project for using a DSS dish on 5.7 and 10GHz!..... ARR 324 **$15**

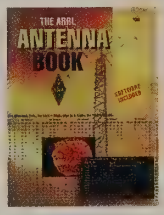
Celestron Sky Map
Big, durable, 11¼" x 13¾", spiralbound, book. Contains a basic star map and glow-in-the-dark star finder, seasonal star charts and the constellations and characteristics of stars ..... CEL 93722 **$19.95**

Planishere and Planet Finder
Spin disk until time of night lines up with the time of month. Place planets using guide on the back. Facing south, hold guide overhead with "south" at the bottom of the chart. The star and planet positions will match ..... CEL 9372040 **$9.95**

ANTENNAS

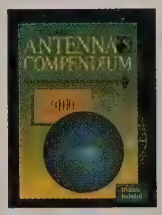
The Amateur Radio Vertical Antenna Handbook
A vertical antenna may be just the thing for your area's conditions. Covering all aspects of vertical theory and design, this belongs on a serious amateur's shelf CQX VERTICALBOOK **$9.95**

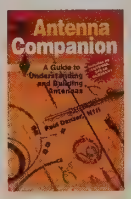




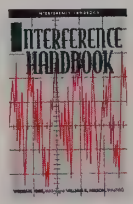
Antenna Book with IBM software
This book covers all aspects of design, theory and construction. With software for design, propagation forecasting and much more..... ARR 126 **$30**

Antenna Compendium 5 with software
Baluns, HF beams, yagis and quads are just some of the subjects covered. Includes IBM software for plotting antenna model data files and more ARR 139 **$20**





Your Ham Antenna Companion
A guide to understanding and building antennas. Includes glossary of terms..... ARR 357 **$10**

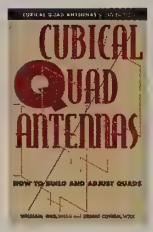


Interference Handbook
How to locate and cure every aspect of radio frequency interference including TV, stereo, radio and phone..... RAC 087093 **$13.95**

W6SAI HF Antenna Handbook
Lots of inexpensive, practical projects that work. Great guide for construction of loop, yagi & vertical ... CQX W6SAIHFANT **$19.95**

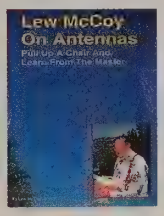
Simple, Low Cost Wire Antennas
This book shows you how to build an efficient antenna at a minimum cost ... RAC 087077 **$13.95**

All About Cubical Quad Antennas
The story of the cubical quad, characteristics, how they work, construction, tuning, adjustment and more.... RAC 087034 **$13.95**



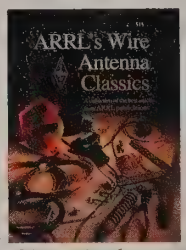
All About Vertical Antennas
This book is the product of over 60 years of experimenting with antenna designs. Formulas, charts, graphs, etc.. RAC 087107 **$13.95**

Antenna Impedance Matching
Use the Smith Chart to develop even the most complex matching network to maximize antenna effectiveness by minimizing feedline loss. ARR 140 **$20**

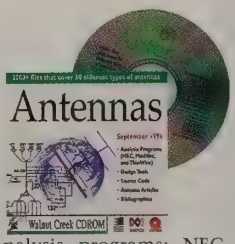


McCoy on Antennas
Pull up a chair and learn from the master! Loaded with antenna projects for Tech thru Extra class. CQX LEWMCCOY **$15.95**

Wire Antenna Classics
Wire antennas range from simple to complex. Find one to deliver the performance you want. This is a book of antennas and ideas. Dipoles, broadband dipoles, multi-band dipoles, loops, collinears, rhombics, wire beams, vertically polarized and receive antennas are all featured in here. There's even a chapter on trees and tree-mounted antennas ..... ARR 344 **$14**



Walnut Creek CD-ROM — Antennas
2000+ files on 50 antenna types including common dipole, vertical Yagi and Quad variations. Design programs to secure desired performance at specified frequencies • Powerful analysis programs: NEC, MiniMec and ThinWire • Reference design and application data on masts, towers, elements, wire and anchors • Historical write-ups and bibliographies. Articles with over 100 illus. on aspects of design and use. WAL ANTENNAS Closeout **$29.95**



ALPHA DELTA COMMUNICATIONS, INC. AA

Come With us On a Fascinating Journey to Explore the Excitement of Amateur Radio and the Mystery of Basic Electronics

NEW

Basic Technology for the Amateur Radio Enthusiast

Table of Contents

Introduction
About the Authors
Note to the Reader
Chapter One: History of Wireless Communications and the New Millennium
Chapter Two: Amateur Radio-Insight and Philosophy
Chapter Three: Hobbies within a Hobby
Long Distance (DX) Global Communications
VHF/UHF Frequency Modulation (FM) Repeater Operation
Amateur Radio Contest Operations
Chapter Four: Video Script
Chapter Five: Basic Electronics
Basic Electronic Theory
The History of Semiconductors
Transistors
Integrated Circuits
Memory Devices
Microcontroller and Microprocessors
Chapter Six: Propagation and the Amateur Bands
Chapter Seven: Antennas, "Doing It Right"
Chapter Eight: Transceivers and Modulation
Chapter Nine: Resource Guide
Chapter Ten: Thoughts and Reflections

The Alpha Delta *video/book* production "Basic Technology for the Amateur Radio Enthusiast" is a simple, straight forward program that takes you on this journey, explaining the wonderment of the hobby along the way.

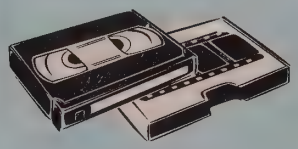
The *video* shows how radio waves are formed and how electrons move to do work, and explains terms like voltage, current, power, resistance and other terms you'll hear relating to the hobby. You will even go with a miniature **"tour guide"** on a walk through a receiver printed circuit board. He will show you how amplification, power supplies, radio frequency and audio amplifiers and other parts of a radio work, and an explanation of what "semiconductors" are all about. Neither the video nor the book get into math or formulas – **we've kept it simple.**

The *book* is designed for the non-technical person interested in joining the hobby or the amateur operator who would like to know more about "what's behind the dials," and explains the fascination of the hobby in detail. The book is ideal as a support tool for someone who is being mentored by an "Elmer," and for amateurs involved with **school system programs.** The program was designed by our Training Director who formerly did college course development and was director of training for a major electronics company.

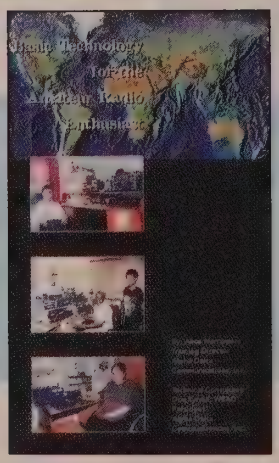
"Basic technology for the Amateur Radio Enthusiast" video/book..... $39.95

ALP BASIC TECH

Includes...



24-minute Basic Technology Video



108-page Basic Technology Book, spiral bound

This video/book program is not a study guide for a specific license class but bridges the gap between study guides and programs that go into technical detail with formulas, math, circuits and theory. In fact, it is a great support program for license study guides, and the new FCC License restructuring.

Every aspiring or existing amateur should have this wonderful program in his or her collection!

ALPHA DELTA COMMUNICATIONS, INC.

Innovative Products for the Radio Amateur
www.alphadeltacom.com

Low Loss, Broadband, Coax Surge Protector

UL listed – provides greater protection for your ham gear from lightning and static charges much more effectively than the lower cost air-gap types.

The heart of this unit is the **Arc-Plug™**, which consists of two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, it can repeatedly carry large currents for brief periods of time. When an excessive voltage surge occurs on your feedline line, an arc forms between the electrodes conducting it harmlessly to ground, reducing feedline voltage to a safe value.

After repeated zaps (over a period of years) the Arc-Plug™ may need replacing. It's time when your receive is down or the feedline VSWR has increased.

- **Frequency Range:** DC thru 3 GHz – better than narrow band DC blocked or stub designs. **Typical Insertion Loss:** 0.1dB @ 1 GHz; 0.2dB @ 2 GHz; and only 0.5dB @ 3GHz.
- The impedance compensated thru-line cavity design allows control voltages to pass thru the device, instead of the "wire around" requirement of DC blocked designs
- The "O" ring sealed knurled knob allows the Arc-Plug™ to be replaced without tools and without removing the protector from the circuit

ATT-3G50 N Females, 3.0GHz (200W) **$59.95**

ATT-3G50U UHF Females, 500MHz (200W).. **$49.95**

2KW versions of both models available at no extra cost; add HP suffix to the model number.

Lightning Surge Protected 2 & 4 Position Coax Switches

Alpha Delta Coaxial Antenna Switches are made only in the U.S.A. The extremely high quality custom design features a cast housing with a constant impedance micro-strip cavity for outstanding performance through UHF. No lossy wafer switches are used, and a solid positive detent roller bearing switch drive leaves no doubt as to which position is selected. The unused antenna circuits are automatically grounded to reduce antenna interaction, noise and the effects of lightning. For the antenna circuit that is in use, the famous replaceable Alpha Delta Arc-Plug™ cartridge provides continuous protection. Antenna switched in or out, you're well protected both ways! The Arc Plug is easily accessed through front panel so you may permanently mount the switch to any surface. Both the two and four position models handle full legal power.

DELTA-2 2-position coaxial switch with SO-239 connectors, rated for up to 500MHz..... **$49.95**

DELTA-2/N 2-position coaxial switch with N-type connectors, rated for up to 1.3GHz..... **$64.95**

DELTA-4 4-position coaxial switch with SO-239 connectors, rated for up to 500MHz..... **$79.95**

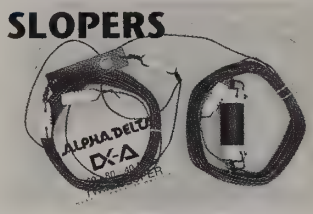
DELTA-4/N 4-position coaxial switch with N-type connectors, rated for up to 1.3GHz..... **$89.95**

New! **CONSOLE DELTA 4 - see p.93**

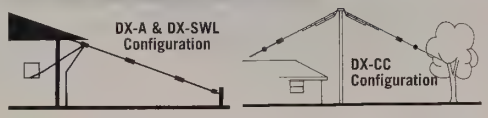
Limited Space High Performance Antennas

Unlike the usual trap antenna, ALPHA DELTA antennas have no capacitors to break down under high RF voltages, and the unique "ISO-RES" inductors and #12 insulated solid copper wire allow full-legal power operation. The direct 50Ω coaxial feed does not require a tuner when operated in the resonant bands, but is recommended for multi-band operation.

SLOPERS



- **NO-TRAP DESIGN**
- **STAINLESS STEEL HARDWARE**
- **ASSEMBLED**
- **SEVERE WEATHER RATED**

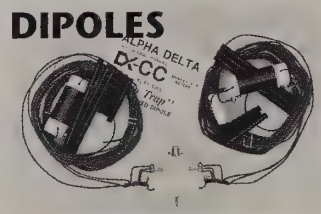


DX-A **160-80-40 Meter 1/4-wave Twin Sloper** A top performing low frequency DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of the 1/2-wave dipole. One leg is 67 ft., the other is 55 ft. Installs like an Inverted-V with ground return accomplished thru tower or down-lead **$59.95**

DX-B **1/4-wave DX sloper** Single wire, high performance on 160, 80, 40 and 30M in limited space. Requires only 60 ft. overall to provide amazing DX performance at heights of only 35 ft., and with the low end at only 8 ft. above the ground. Stainless-steel hardware, #12 solid copper wire and efficient Alpha Delta *"Iso-Res"* RF choke coils. For broadbanded performance like the DX-A, the DX-B can be used with an antenna tuner. Direct 50Ω coaxial feed, rated for full legal power. Comes pre-assembled and pre-tuned..... **$69.95**

DX-SWL **SWL Broadcast Sloper** Covers the 13, 16, 19, 21, 25, 31, 41, 49, 60, 90, and 120M short-wave bands plus the AM broadcast band. Sloper design provides outstanding reception of low-angle DX signals. Multi-band 2KW transmit capability by using an appropriate antenna tuner. Overall length – 60 ft **$79.95**

DIPOLES



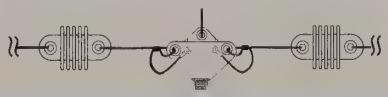
ALL ALPHA DELTA Dipoles use the DELTA-C Hardware Kit

Short Multi-band Dipoles

DX-CC "No-Trap" 80-40-20-15-10 meter dipole or inverted V. Overall length – 82 ft..... **$119.95**

DX-DD "No-Trap" 80 and 40 meter dipole or inverted-V Overall length – 82 ft. **$89.95**

DX-EE "No-Trap" 40-20-15-10 meter dipole or inverted V Also covers 30, 17 and 12 meters using an antenna tuner. Overall length – 40 ft. **$99.95**



DX-Series Full-Size Monoband Dipoles

These FULL SIZE dipoles utilize the Delta-C Center Insulator with built-in Arc-Plug® Surge Suppressor, described to the right. Comes fully assembled using #12 insulated high-strength solid copper wire, CIN end insulators and 50 ft. nylon of support rope. Useable with coaxial cable or open-line. Rated for legal power.

DX-80 For 3.5 MHz (75-80M) – 133 ft. long..... **$49.95**
DX-40 For 7 MHz (40M), – 66 ft. long..... **$39.95**
DX-20 For 14 MHz (20M) – 33ft. long..... **$39.95**

DX-LB **Low Band Dipole** Covers 160-80-40 meters with an overall length of only 100 ft. Antenna performance and 2:1 VSWR bandwidth is site dependent and varies with height above ground and surrounding objects. The typical bandwidth is:

160M – 20kHz • 80M – 40 kHz • 40M – 300 kHz

Full band coverage can be accomplished with an antenna tuner. Built with insulated #12 wire, stainless steel hardware and uses the Model DELTA-C static protected center insulator and CIN end insulators. Use with coax or open wire line and configure as a dipole or inverted-V. Assembled and ready to go! **$119.95**

DX-LB PLUS **Low Band Dipole** Covers 160-80-40-20-15-10M. Overall length –100 ft **$149.95**

DX-ULTRA **Shortwave Dipole Antenna** Covers AM Broadcast through 30MHz. Provides efficient, low-noise, broadband performance for Medium Wave, Tropical, International SW, Military, Government, Embassy, Maritime, Aircraft, Commercial and Utility frequencies. *ISO-RES* inductors, parallel wire elements and the exclusive DELTA-C Center Insulator with the built-in ARC-PLUG® Static Electricity Protector. Over all length is 80 ft.; may be installed as a dipole, inverted-vee, or full sloper. It can be used with an antenna tuner as a transmit antenna up to 2kW. Connectors will accept either coaxial cable or balanced line. Fully assembled, ready to go! . **$119.95**

Antenna Hardware Kit

Don't assemble your next dipole without one of these CENTER/END insulator combos!

Designed for strength, and to provide equipment protection with a built-in replaceable **SEP Arc-Plug® Static Electricity Protector.** Ideal for dipoles, Vees, zepps and all kinds of SWL receive antennas. Feeds with either coax or balanced line. Rated for full legal power.

Dangerous static charges are developed from thunderstorms, high wind driven snow or desert sand, and have been measured to 1,000's of volts; so potent, they can puncture the dielectric of unterminated coax.

The SEP Arc-Plug protector mounted in the DELTA-C center insulator "bleeds off" slow rising static electricity charges, routing them harmlessly to ground, before they can enter the shack thru the feedline. This is far more effective than DC grounded baluns or chokes, which can be "popped" by static charges.

Both the **DELTA-C** Center Insulator and **DELTA-CIN** End-Insulators are made from an extremely rugged UV and RF resistant DELTALLOY material so tough that it can survive a drop off a roof without damage. Stainless steel hardware used in the center insulator for use in salt air and other corrosive environments, and all internal connections are hard soldered.

DELTA-C **Antenna hardware kit** Contains DELTA-C Center insulator, (2) end-insulators and a SEP ARC-PLUG Protector..... **$29.95**

DELTA-CIN **End-insulators** (separate)..... ea. **$1.95**

ALPHA DELTA COMMUNICATIONS, INC.

AA

outbacker ANTENNAS

HAM • MARS • CAP • MARINE/ITU
WIDE BANDWIDTH • LOW VSWR
NO COILS – JUST CHANGE THE TAP!

The Outbacker™ – Constructed of fiberglass with pre-tuned copper helical windings and covered with smooth epoxy-resin and a coating of polyurethane for strength, and durability. The mounting ferrule is nickel-plated brass with standard 3/8x24 threads.

Frequency coverage is broadbanded but the top whip section is adjustable which allows tuning for the lowest VSWR .

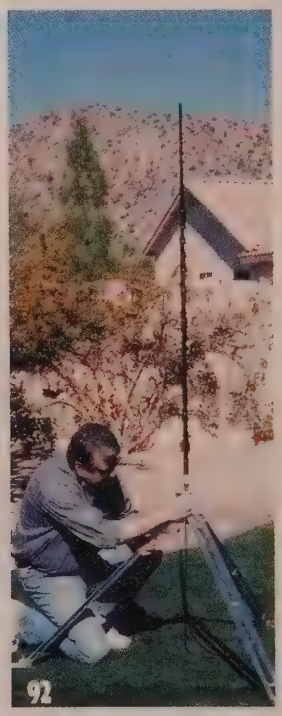
Tap points are clearly engraved for each band. Manually change bands by plugging the unique OUTBACKER "Wander lead" into the proper tap – for 75M the lead is removed entirely.

Sleek black finish, 8 models with optional spring/base, mount and cable.

Outbacker Model	Description	AES Model	Price
OUTBACKER PERTH	75-10M + WARCs, 150W P.E.P • 7.5 ft. tall • 3.5 ft. stinger retracts into the 4 ft. mast for garaging	Perth	$289.95
OUTBACKER PERTH PLUS	75-10M + 6 & 2M • 6 ft. tall • Perfect for HF + VHF radios: IC-706 Series, DX-70T Series, FT-100, etc.	Perth Plus	$299.95
OUTBACKER 8	75-10M, 300W P.E.P • 6 ft. tall	OB-8	$279.95
OUTBACKER HP	75-10M • HIGH POWER – 500W P.E.P rating • 6 ft. tall	OB-8HP	$299.95
OUTBACKER SPLIT	75-10M, 300 W P.E.P • 6 ft. tall • Breaks down into two 3 ft. sections, comes with carrying pouch	OB-S8	$299.95
OUTBACKER TRI-SPLIT	Same as OUTBACKER SPLIT except breaks down into three 2 ft. sections, storage pouch included	OB-8TRI	$329.95
OUTBACKER MARINER	Covers ITU Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, & 22.1MHz and Ham bands: 75, 40, 20,17 &10M	OB-M	$429.95
OUTBACKER STEALTH PLUS	75-10M + 6 & 2M • 4 ft. tall, 150W PEP • Perfect for use w/HF + VHF radios: IC-706, DX-70T, FT-100.	Stealth PLUS	$269.95
OUTBACKER Spring/Base	HEAVY DUTY • Nickel/zinc plated • 3/8-24 threads • SO-239 connector • Requires 1/2" mtg. hole	OB-SB	$99.95
DIAMOND K-4003/8C	Diamond 3/8" x 24 thread trunk-lip mount with 6 ft. coaxial cable for all OUTBACKER models	DIA K400-3/8C	$69.95
DIAMOND C-110	Diamond 10 ft. extension cable for K-400-3/8C trunk-lip mount	DIA C-110	$14.95

The Outreach™...$399.95

A complete efficient portable antenna system to meet the needs of those who have limited space or are deed restricted. Ideal for backyard, patio, woods or field day. Covers all bands from 160 thru 10 meters, providing an exceptional level of performance. The perfect companion for the Outpost Tripod mount. Black, heavy duty epoxy finish looks great! Slim design makes it nearly invisible to your neighbors.



- Covers all amateur bands, 160 thru 10 meters
- Overall Length: 12 ft. • Weight: 4 lbs.
- Exceptional performance! 10, 12, and 15 meters are 5/8 wave – all bands are center loaded for peak performance.
- Rated at 300W PEP.
- Utilizes the time proven OUTBACKER® band tap system.
- Split 8 ft. shaft and 4 ft. stinger
- Breaks down into (2) 4 ft. sections for portability; comes with a protective carrying case.
- Terminates into a standard 3/8" x 24 threaded base.

The Outreach 500™ ...$439.95

The mechanical specifications are exactly the same as for the standard Outreach model, however it does not cover 160 meters, but includes 6 meters in addition to all other HF bands including the WARC bands. A band tap is provided for both 80 and 75 meters, allowing coverage of the entire 3.5 to 4.0 MHz range. Power handling capability has been increased to a robust 500W CW and 600W PEP SSB.

The Outrunner™ ...$349.95

It's like the standard Outreach model, except its length is 9 ft. instead of 12 ft. It covers 160 thru 10 meters including WARC bands, but lower rated at 150 Watts PEP. It also has has a two-piece split shaft, and a 3 ft. stinger, and terminates into a standard 3/8" x 24 threaded base.

www.alphadeltacom.com

Outpost™... $199.95
Tripod/Ground Coupler Mounting System

- The fold-out legs and blades act as a large capacitor to improve ground coupling for a better impedance match and antenna efficiency
- Matches the base impedance of all OUTBACKERs
- Compact, fold-up design sets up quickly. Stands alone, no digging, no holes, no concrete. Collapse it, throw it in the trunk, take it with you!
- Fold-over top bracket. Mobile-type mount with SO-239 connector accepts a standard 3/8" x 24 stud. Antenna is easily removed or folded down for changing bands, or to be out of view when not in use.
- Constructed of aircraft 6061-T6 aluminum, stainless steel hardware and wing nuts. All assembled, no tools required. • Weigh: 18 lbs

DH-1...$249.95
Hydraulically Dampened Fold-Over Fixture

- Allows easy installation or working on your vertical antenna from the ground without a ladder or the inconvenience of taking it up and down.
- Quick and easy raising and lowering. Great for the larger HF Verticals such as the R-6000, R-7000, R-8, DX-77, Patriot and others up to 29 ft. long.
- The Hydraulic Module provides assisted lowering for safe, one man operation without excessive leverage
- Stealth, unobtrusive! When lowered, the attached antenna rests steady in a horizontal position hidden from your neighbor's view
- Bolts temporarily to a weighted board, or to a 16" square x 24" deep concrete base • Stainless steel hardware, no assembly required • Weight: 33 lbs.

VRC Variable Response Console

ALPHA DELTA'S advanced audio processing speaker system offers outstanding audio quality for music, voice, and CW/data for the discriminating Ham operator. It enhances the reception capabilities of ANY receiver, transceiver or scanner—even those using DSP! Exclusive custom designed ducted port bass reflex speaker system offers outstanding audio performance.

- Low distortion, low harmonic push-pull audio amplifier. Outperforms the typical single-ended amplifier.
- Adjustable 12dB Bass boost and cut circuitry enhances both Voice and Music. LED reads out in dB
- Adjustable sharp cut-off "Sampled Data Switched Capacitor Audio Filter" (SCAF) can be set for optimum interference reduction for any mode and any band condition – AM, FM, SSB, CW or data. An LED light bar readout shows the cut-off frequency.
- Peaking circuitry (20 dB) allows CW and Data signals to "pop" out of the background noise and interference.
- Continuously adjustable 40dB Deep Notch circuitry effectively takes out interfering heterodynes.

Model VRC Variable Response Console..... **$249.95**
Model VRC-2 Ducted Port Bass Reflex Speaker
same as above, but no amplifier or filters...**$99.95**

Console DELTA-4C Surge Protected Coaxial Switch

The DELTA-4C, 4-position antenna switch console is designed to sit conveniently next to your station equipment with no wall or desk mounting required. The rear connector and console design prevents coax cable from pulling the console backward. Stays put!

- 4 positions – switch multiple antennas to your station or multiple equipment to your antenna
- Retains the excellent performance features of the proven DELTA-4 switch series, using the same micro-strip channels, positive detent switching and excellent isolation between terminals
- Provides station surge protection with built-in ARC-PLUG gas tube module, easily replaceable front the front panel. All circuits are protected during operation, and unused positions are grounded. A master center-off position grounds all circuits for maximum station protection
- Built with a heavy aluminum casting
- Available with SO-239 or type-N connectors

Console DELTA-4C SO-239 connectors , 4 position **$139.95**
Console DELTA-4CN Type N Connectors, 4 position..... **$149.95**

KENT Paddles by ALPHA DELTA

Titanic Key

Reasons for Buying KENT Paddles:

- **Delicate, smooth feel due to sealed ball bearings instead of simple spring-loaded pivots • Free movement, minimum friction sideplay**
- **Precise gap alignments with instrument knurled heads on fine pitched screws and locking nuts.**
- **Rugged components made from machined, polished solid brass contained within a permanent brass housing.**
- **Silver contacts • Non-slip feet • Weighted for stability • Paddle models use heavy steel bases**
- **Designed and produced by *R.A. Kent Engineers, England.* Imported, fully assembled and tested by *Alpha Delta.***

Model SK-1 Straight Morse Key (top) **$129.95**
Model SP-1 Single Paddle Morse Key (bottom/left)...**$139.95**
Model TP-1 Twin Paddle Morse Key (bottom/right)....**$149.95**

TK-1 Titanic Morse Code Key ... $149.95

Robert Kent of Kent Engineers in England did meticulous research on the code key that was used on the Titanic, and has produced a beautiful crafted machined brass, working replica to be marketed by Alpha Delta. Each key has a serial number, a matching certificate telling of the event, and are individually signed by Kent for authenticity. The key provides extremely smooth operation and is a great addition to any station or collector's desk.

BARKER & WILLIAMSON ANTENNAS and ACCESSORIES

603 Cidco Rd • Cocoa FL 32926 Tel: 321-639-1510 • Fax: 321-639-2545

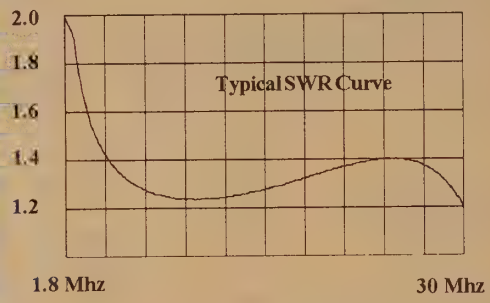
For more information, see our website at www.bwantennas.com

Cover the entire HF band with one antenna – *The Easy Way*

True Continuous Frequency coverage – 1.8 to 30 MHz.

These antennas are so unique that they even have a patent on them! They can offer operation over the entire HF band *without need for an antenna tuner.* Work *any* frequency you want without going through a lot of knob twirling and measurements to get a good SWR match – *just set your frequency and go!*

Tens of thousands of these antennas have been supplied to the US military, NATO, UN, Red Cross, and other similar agencies. They can be found on every continent in the world.



Broadband Folded Dipoles do it all!

- ✓ *Unique Patented Design*
- ✓ *True Continuous Coverage*
- ✓ *1.8 - 30 Mhz in Only 90 Ft.*
- ✓ *SWR less than 2:1 from 1.8-30Mhz*
- ✓ *No antenna tuner required*
- Low Noise for Superior Receive
- 2 KW PEP SSB/CW ICAS
- #14 stranded Copperweld or Stainless wire
- 50 Ohm input with SO-239
- Comes completely assembled, only 10 lbs.
- Install as flat, inverted Vee, or sloper

AC-5-30 5.0–30 MHz, 65 ft., Copperweld wire **$199.95**
BWD-1.8-30 1.8–30 MHz, 90 ft., Copperweld wire ... **$199.95**
ACS-5-30 same, but Stainless Steel ... **$289.95**
BWDS-1.8-30 same, Stainless Steel .. **$289.95**

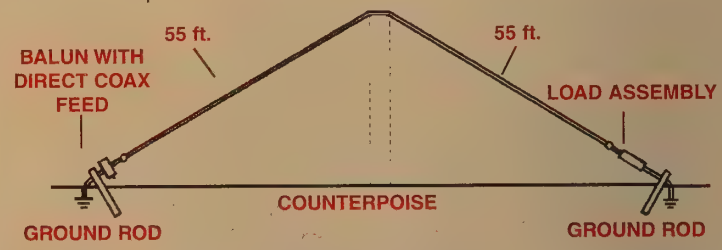
Trap Dipole Antenna Kits

Barker & Williamson dipoles are made from #14 stranded copperweld wire. All antennas will handle 1KW PEP. These dipoles may be installed as inverted "Vees" or horizontally.

Length	Bands	Description	Model	Shpg Weight
137 Ft 41.75 M	160 80 40 20	Low SWR on all bands. Three sets of traps isolate a full half wave on each band for superior performance.	AS-160 **$154.95**	8 lbs 3.65 Kg
110 Ft 33.5 M	80 40 20 15 10	Low SWR on 80 and 40 meter bands, somewhat higher SWR on 20, 15 and 10 meters. Utilizes one set of traps.	AT-110 **$99.95**	5 lbs 2.25 Kg
96 Ft 29.25 M	160 30	2 KW PEP. This antenna has one set of loading coils to allow 160 meters in very limited space.	AXS-160 **$99.95**	6 lbs 2.72 Kg
78 Ft 23.75 M	80 40 20	Two sets of traps give low SWR on all bands. Excellent 80 meter coverage.	AS-80 **$119.95**	6 lbs 2.72 Kg
65 Ft 19.8 M	80 40 15	A combination of one set of loading coils and one set of traps allows 80 meters in very limited space.	AXS-80 **$119.95**	6 lbs 2.72 Kg
55 Ft 16.75 M	40 20 15 10	Four bands in only 55 ft. One set of traps gives efficient operation.	AT-55 **$87.95**	5 lbs 2.25 Kg
40 Ft 12.2 M	40 20 15 10	Utilizing three sets of traps, this antenna has low SWR on all bands.	AS-40 **$154.95**	7 lbs 3.18 Kg
20 Ft 6.1 M	20 15 10	For very tight spots, two sets of traps yield low SWR on all three bands.	AS-20 **$119.95**	6 lbs 2.72 Kg

Broadband End-Fed Vee – 1.8 to 30MHz

All of the same unique broadband characteristics of our folded dipole antennas, except in a grounded configuration. Good for metal roof tops.



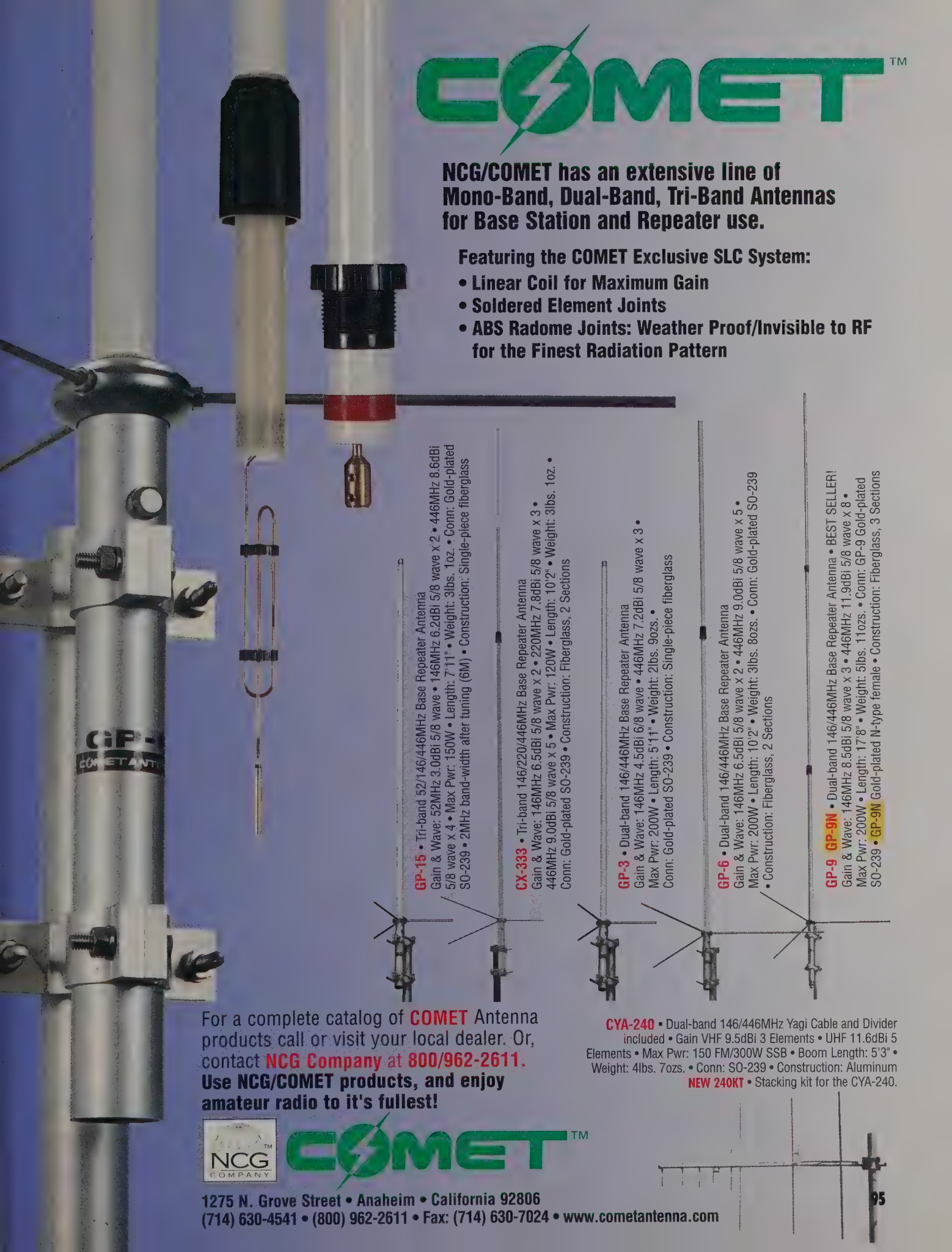
AC-1.8-30 with Copperweld wire..... **$209.95**
ACS-1.8-30 with Stainless Steel wire **$299.95**

NO YARD? DEED RESTRICTED? NO PROBLEM!
WINDOW MOUNT/PORTABLE ANTENNA
2–40 METERS • 300 WATTS

$89.95

AP-10A Designed especially for people that cannot erect a permanent antenna. Easy tuning to *any frequency continuous* from 10–40M. Will also operate 2 and 6 M. Mounts to a window, table, balcony, etc. Base loaded unit includes telescopic whip, window mount bracket, single coil with fly-lead/clip, insulated counterpoise wire, 10 ft. of coax and hardware. Stainless steel whip collapses to 23 inches for easy transport.

Quality Communications Products Since 1932 — All Products Proudly Made in the USA


COMET™
NCG/COMET has an extensive line of Mono-Band, Dual-Band, Tri-Band Antennas for Base Station and Repeater use.
Featuring the COMET Exclusive SLC System:
• Linear Coil for Maximum Gain
• Soldered Element Joints
• ABS Radome Joints: Weather Proof/Invisible to RF for the Finest Radiation Pattern
GP-15 • Tri-band 52/146/446MHz Base Repeater Antenna Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass
CX-333 • Tri-band 146/220/446MHz Base Repeater Antenna Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections
GP-3 • Dual-band 146/446MHz Base Repeater Antenna Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass
GP-6 • Dual-band 146/446MHz Base Repeater Antenna Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections
GP-9 GP-9N • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER! Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections
For a complete catalog of COMET Antenna products call or visit your local dealer. Or, contact NCG Company at 800/962-2611.
Use NCG/COMET products, and enjoy amateur radio to it's fullest!
CYA-240 • Dual-band 146/446MHz Yagi Cable and Divider included • Gain VHF 9.5dBi 3 Elements • UHF 11.6dBi 5 Elements • Max Pwr: 150 FM/300W SSB • Boom Length: 5'3" • Weight: 4lbs. 7ozs. • Conn: SO-239 • Construction: Aluminum
NEW 240KT • Stacking kit for the CYA-240.
NCG COMPANY
COMET™
1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611 • Fax: (714) 630-7024 • www.cometantenna.com
95

Go Mobile, get there with COMET!

Build your own antenna mounting system with the lip mounts and cable assemblies below.

Choose a Lip Mount

RS-730
Multi-adjustable heavy duty lip mount, up to 70" antenna

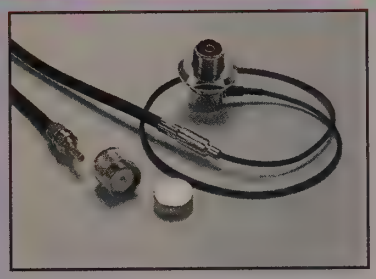
RS-720 • RS-720 NMO
Multi-adjustable lip mount, up to 60" antenna RS-720 NMO accepts an NMO mount

RS-520
Multi-adjustable lip mount, up to 45" antenna

Choose a Cable Assembly

3D5M Standard low loss cable assembly. Gold plated SO-239/ PL-259 connectors. 17' length

3D4M Same as 3D5M, but 13.5' length



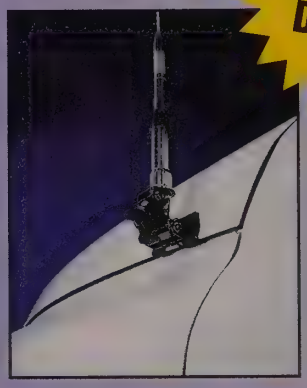
CK-3M5 Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage

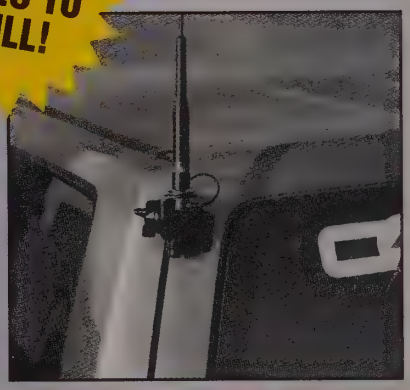
CK-3M Deluxe cable assembly same as CK-3M5, but 9'9" total length

Create an antenna mounting system just for your vehicle!

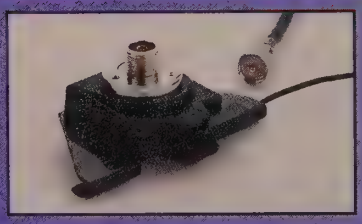
Attach the chosen mount to the trunk, door, hood, hatch or rear door of your car, van or SUV. Any lip 1/4" or less in thickness will do. Tighten the setscrews and adjust the mount to vertical. **Installation takes only a few minutes.**

NO HOLES TO DRILL!





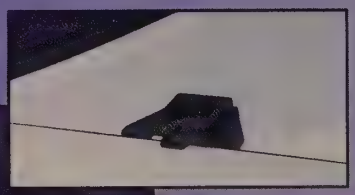
Additional available mounting assemblies with cable included!



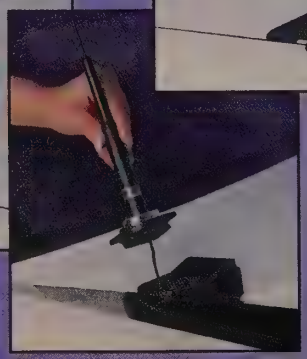
CQ-5M
Deluxe "Quick-Disconnect" trunk lip mount with CK-3M5 cable included. With a flip of a lever, the antenna and coax are easily removed and stored in the trunk for car washes, theft prevention or any reason.

GR-5M
Deluxe stainless steel trunk lip mount with CK-3M5 deluxe cable included. Fully adjustable.

A



C



B

COMET™

NCG COMPANY

1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611
Fax: (714) 630-7024 • www.cometantenna.com

Go Mobile, get there with COMET!

NEW MH-209SMA • Dual-band 146/446MHz HT Antenna w/SMA Conn
Gain & Wave: 0 1/4 wave • Length: 3" Flexible rubber • Conn: Male SMA • Max Pwr: 5W

NEW SMA-503 • Dual-band 146/446MHz HT Antenna w/SMA Conn
Length: 8.75" • Conn: Male SMA • Max Pwr: 10W

NEW MH-510 • Tri-band 52/146/446MHz HT Antenna w/SMA Conn
Gain: 0/0/ 3.2dBi • Length: 20.75" • Conn: Male SMA • Max Pwr: 10W

SB-15 • Tri-band 52/146/446MHz w/fold-over
Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

SBB-7 SBB-7NMO • Dual-band 146/446MHz w/fold-over **NEW BLACK COLOR**
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

SBB-5 SBB-5NMO • Dual-band 146/446MHz w/fold-over **NEW BLACK COLOR**
Gain & Wave: 146MHz 2.5dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

~~TUFF~~ **Z750** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: Gold-plated PL-259 • Max Pwr: 200W

~~TUFF~~ **Z780** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
146MHz 6/8 wave 4.5dBi • 446MHz 5/8 wave x 3 7.2dBi • Length: 62" • Conn: Gold-plated PL-259 • Max Pwr: 150W

B-20 B-20NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.0dBi 5/8 wave x 2 • Length: 30" •
Conn: B-20 PL-259/B-20NMO NMO • Max Pwr: 50W

B-10 B-10NMO • Dual-band 146/446MHz cellular look-a-like •
Gain & Wave: 146MHz 0dBi 1/4 wave • 446MHz 2.15dBi 1/2 wave • Length: 12" •
Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

• The **CA-UHV** is a 6M/2M/70cm triband antenna. Add 2-3 of the stock or optional coils for 5-6 band operation.
• HF-70cm all in one economical easy to mount antenna.
• Fold-over hinge built in.
• Select the correct duplexer or triplexer for your specific radio (s).
• CF-706A, CF-530, CFX-514N (Ask your dealer)

NEW CA-UHV • HF/6M/2M/70cm Mobile Antenna40/*20/*17/15/10/6/2M/70cm **40M Thru 70cm!**
Gain & Wave: HF-6M 1/4 wave • 2M 3.4dBi 5/8 wave • 70cm 2.15dBi 1/2 wave • VSWR: HF 1.6:1 or less • 6M-70cm 1.5:1 or less • Length: 6'2"
• Max Pwr: HF 120W SSB • 6M 200W SSB/100W FM • 2M/70cm 100W FM • *L-14 Optional 20M coil • *L-18 Optional 17M coil

NEW MSG-1000C * • Dual-band 146/446MHz w/spring whip and fold-over
Gain & Wave: 146MHz 2.15dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: PL-259 • Max Pwr: 120W

NEW MSG-1100C * • Dual-band 146/446MHz w/spring whip and fold-over
Gain & Wave: 146MHz 3.5dBi1/2 wave • 446MHz 6.0dBi 5/8 wave x 2 • Length: 43" • Conn: PL-259 • Max Pwr: 150W

NEW MSG SERIES*

Performance and Durability! Designed with a spring in the whip to absorb impacts.

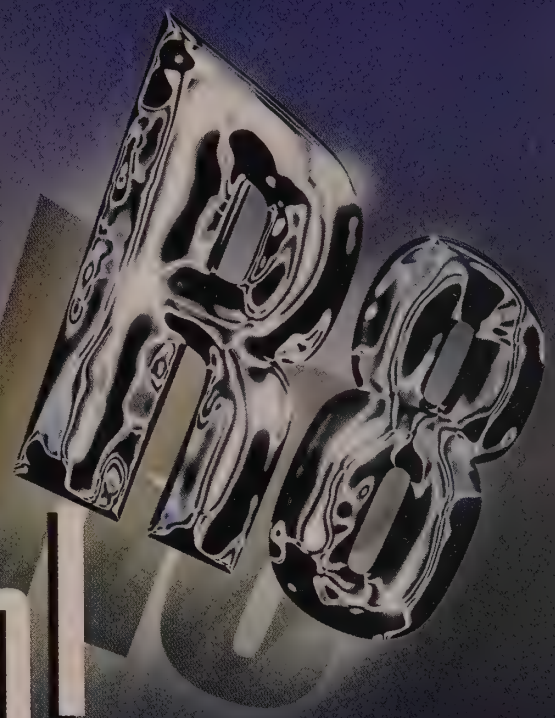
For a complete catalog of NCG/COMET Antenna products call or visit your local dealer. Or contact NCG Company at 800/962-2611. Use NCG/COMET products, and enjoy amateur radio to it's fullest!

NCG COMPANY

COMET™
*NCG Product

NCG COMPANY
1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611
Fax: (714) 630-7024 • www.cometantenna.com

Do the math!



2:1 Bandwidth (kHz)	
40M	150
30M	>50
20M	>350
17M	>100
15M	>450
12M	>100
10M	>1500
6M	>1500

6 10 12 15 17 20 30 40

Meter Vertical Antenna

Rig+Amplifier+Tuner+R8=Performance

What happened to the multiband vertical antenna? For years, multiband verticals with their own counterpoise systems have been the answer for operators in need of a single omnidirectional antenna capable of working all of the desired bands within a small footprint. They were compact, easy to install and didn't require radials making them the perfect choice in many instances.

What happened?? The tuner is what happened. Thanks to the tuner, Hams are now capable of running more mismatched power from their solid state rigs to their antennas than ever before. Although the tuner has obvious merits, combining eight HF bands into thirty odd feet of antenna does not come without some concessions to the laws of physics. Clearly, the ability to tune across the bands combined with an amplifier adds new elements to the traditional multiband vertical equation.

The R8 is the obvious answer. The R8 will allow you to safely run a 3.0:1 VSWR mismatch at 1500 watts CW without damaging its sophisticated components*. The antenna is also quite broadbanded and is less likely to be as sensitive to its surroundings. Equally important, the antenna only has two traps that have been designed to virtually eliminate damage due to moisture induced arcing.

Call your dealer and order one today! The end result will be another equation that you will grow to appreciate.

The R8 = operating confidence, versatility and fun.

* Check VSWR graphs for actual 2.0:1 VSWR bandwidth.

For more information on this outstanding HF Multiband Vertical Antenna, visit our web site at: **http://www.cushcraft.com** or contact any one of our dealers worldwide.

R8

CUSHCRAFT
COMMUNICATIONS ANTENNAS

48 PERIMETER ROAD, MANCHESTER, NH 03103 U
(Tel) 1-603-627-7877 • (Fax) 1-603-627-1764

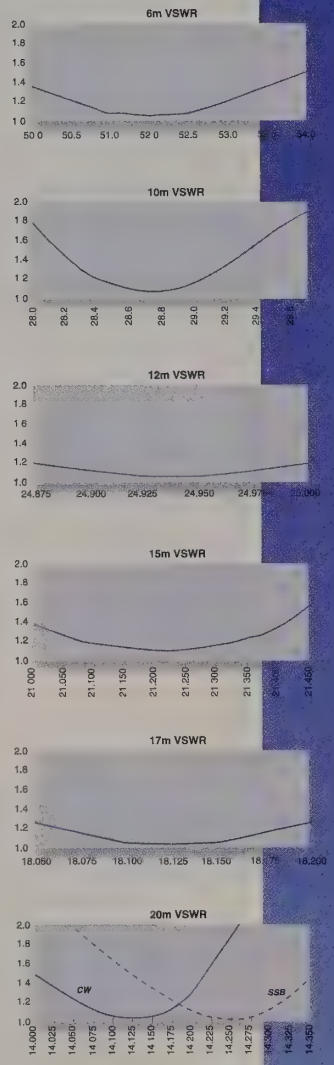
INTRODUCING R6000

6 - 20 Meters

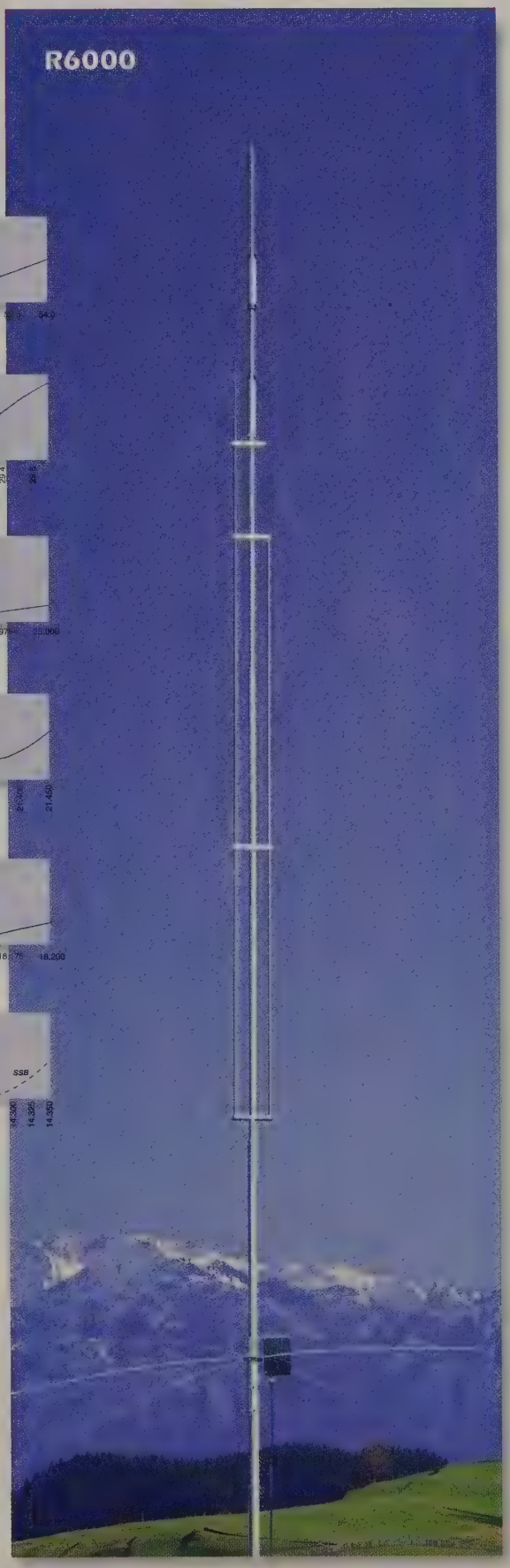
The Shape of Things to Come

The NEW R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R7000, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **AUTOMATIC BAND CHANGING**
  To any band 6 through 20 meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match.



SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >1300
	10m >1700
	12m >100
	15m >450
	17m >100
	20m 300
Power ,Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in	1.5 -1.75
(cm)	(3.8-4.4)
Wind load, ft^2 (m^2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)



The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations. Or pack up the R6000 for a trip to the DX location of your dreams. With sunspots on the rise, amateurs worldwide are returning to the HF bands in large numbers. The R6000 will take you there first class for the exciting years ahead.

CUSHCRAFT

Cushcraft Corporation, Manchester, NH

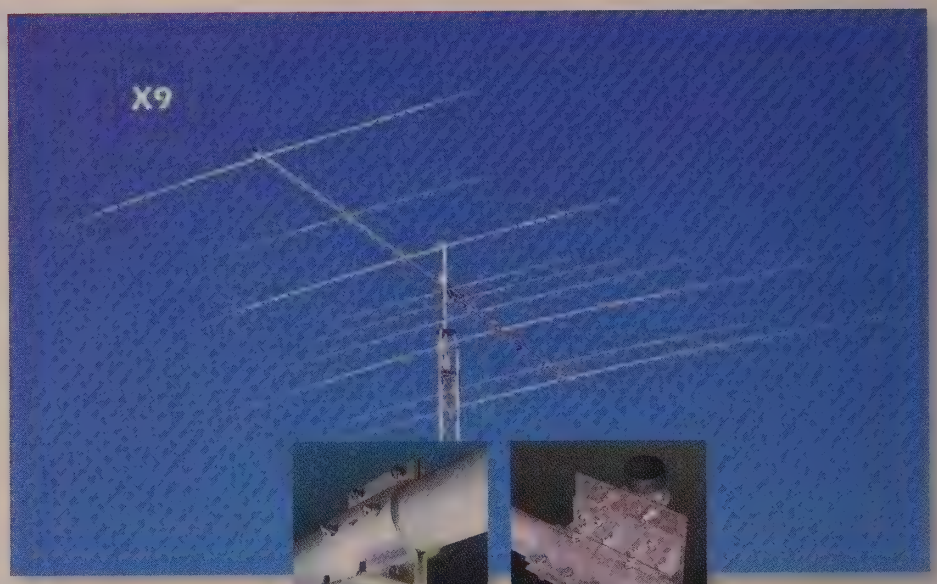
BIG THUNDER SERIES TRIBANDERS

10, 15, 20 Meters

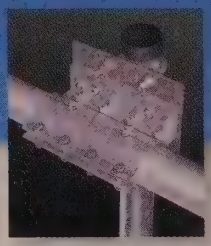
X9 & X7

The new X9 and X7 Triband Yagis are geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new *4L Log Cell* design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna family which will easily handle the legal limit.

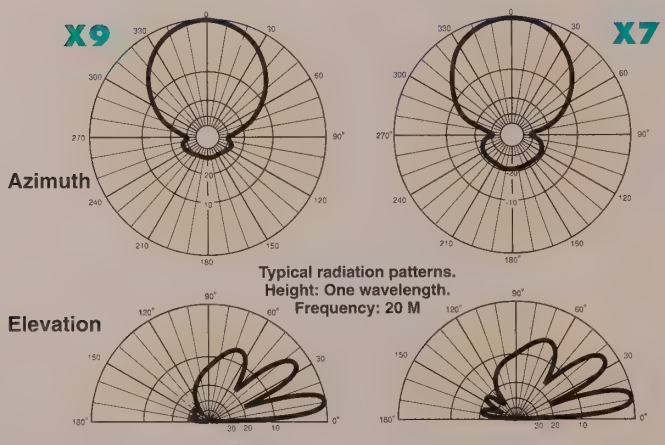


Boom to Mast Clamp



Element to Boom Mounting

- **New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern**
- **100+ MPH Construction for Best Reliability and Long Life**
- **NEW 4L Log Cell Driven Elements for better VSWR Bandwidth**
- **Trapless Driven Elements and Reflectors for Reliable Power Handling**
- **Interleaved Element Design for Mono-Band Performance**
- **Add-on kits available for 40 Meters**



Typical radiation patterns. Height: One wavelength. Frequency: 20 M

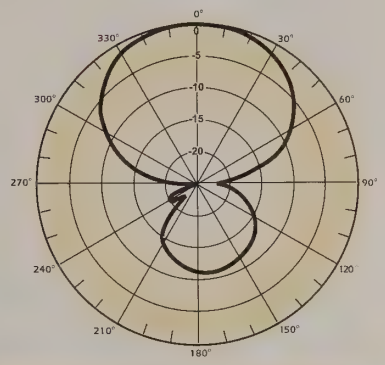
SPECIFICATIONS		X9	X7
Frequency Coverage (Meters)		10, 15, 20	10, 15, 20
Total number of Elements		9	7
Maximum Gain (dBi)	20M	13.0 @ 14 deg	12.5 @ 14 deg
@ One Wavelength	15M	13.9 @ 12 deg	13.0 @ 12 deg
	10M	14.0 @ 15 deg	12.9 @ 14 deg
Maximum Front to Back Ratio (dB)		30	30
Number of Elements per Band	4		3
VSWR Minimum		1.1:1	1.1:1
VSWR 1.5:1 Bandwidth (KHz)	20M	350	600
	15M	450	750
	10M	1500	1700
Longest Element, ft (m)		36.5 (11.12)	37.2 (11.33)
Turning Radius, ft (m)		21.7 (6.61)	20.0 (6.09)
Boom Length, ft (m)		28 (8.53)	18 (5.49)
Boom Diameter, in (cm)		2-1/2 (6.35)	2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)	2-1/2 (6.35)		2-1/2 (6.35)
Maximum Wind Survival, mph (kph)	>100 (>161)		>100 (>161)
Maximum Wind Surface Area, ft^2 (m^2)		9.9 (.92)	7.9 (.73)
Windload @ 80 mph, lb (kg)		255 (116)	202 (92)
Maximum Power Handling (KW)		2	2
Weight, lb. (kg)		85 (38.5)	60 (27.2)

HF MULTIBAND BEAM

10 - 20 Meters

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.

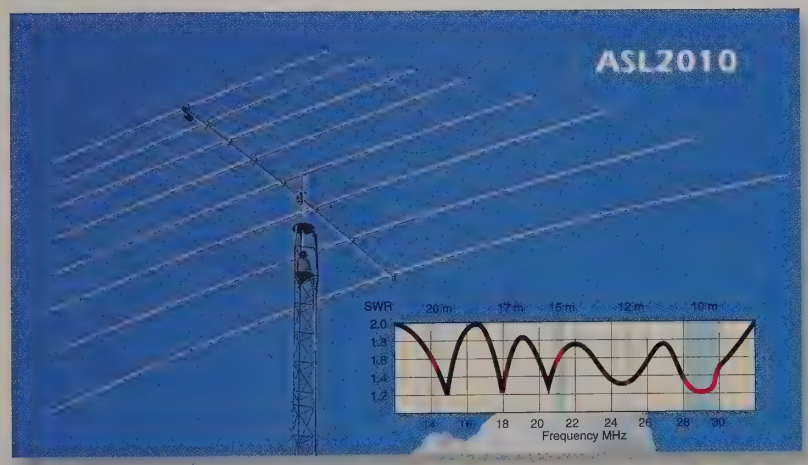
High Front To Back Ratio
On 10/15/20m



The Director, Small Footprint–Big Signal

MA5B. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

MA5B SPECIFICATIONS						
Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	5.3	1.0	4.8	1.0	3.6	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	8.8ft (2.7m)					
Boom Length	7.3ft (2.2m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft^2 (.3 m^2)					
Max. Power Handling	1.2 kw					
Weight	26.5 ibs. (12kg)					



Skylog

- **Continuous five band coverage from 13.5 to 32 MHz**
- **Constan ver entire frequency range**
- **6.4 dBi gain, 65 degree beamwidth**
- **High efficiency design, antenna stays cool and VSWR steady**
- **18 foot boom and 19.5 foot turning radius**

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

MODEL	ASL2010
Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft^2 (m^2)	10.1 (.93)
Weight, lb (kg)	55 (25.5)

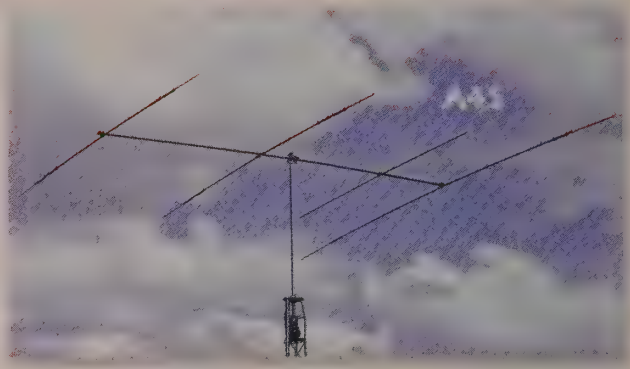
CUSHCRAFT

WORLD RANGER MULTIBAND HF YAGIS

A4S Four Element Beam - 10, 15 & 20 Meters

With stainless steel hardware.

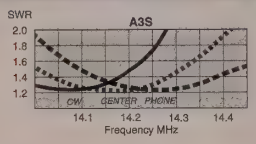
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

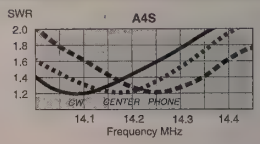


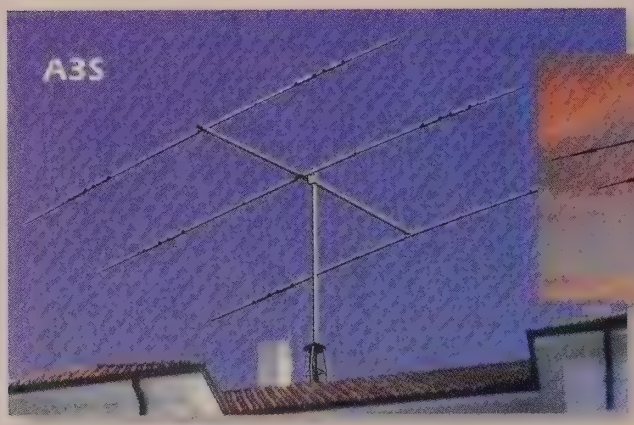
A3S Three Element Beam - 10, 15 & 20 Meters

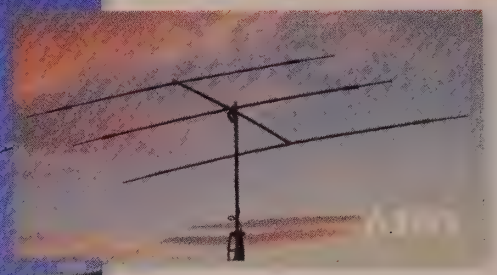
With stainless steel hardware.

The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.



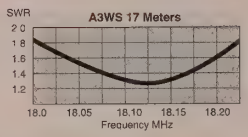


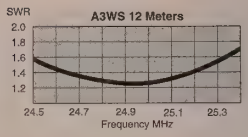




A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





MODEL	A4S	A3S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Boom Diameter, In (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ft^2 (m^2)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

A743 7 MHz/10 MHz kit for A3S
A744 7 MHz/10 MHz kit for A4S
A103 10 MHz kit for A3WS

MODEL	A743/A744		A103
BAND	**7 MHz (40 m)**	**10 MHz (30m)**	**10 MHz (30m)**
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	2000 PEP	2000 PEP	2000 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40>125	>500	>200
Power Rating Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

CUSHCRAFT

MULTIBAND DIRECTIONAL YAGI

6/2 Meter,70 CM,

A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

Boom-to-Mast

Element Hardware

Big Thunder Monobanders

XM240 - 40 Meter 2 Element Yagi. The famous 402CD two element 40 meter beam is now redesigned as the XM240. It features the same contest winning performance with a 90+ mph wind rating. A 2-1/2" OD boom and Big Thunder style 3/16" thick extruded element and boom plates are used to eliminate mechanical failures. A Phillystran boom truss and 1:1 high power balun are included.

XM - 10, 15 & 20 Meter 5 Element Yagis. Cushcraft announces new 5 element Monobanders for 10, 15 & 20 meters. Each XM model has Big Thunder hardware and high wind ratings. Phillystran boom trusses are used on the 20 meter model. The feed systems are 50 ohm direct feed - dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. Big Thunder Monobanders were Beta tested at three extreme bad weather sites for the winter 1997/1998 season. They have excellent patterns and are perfect for stacks.

MODEL	XM240	XM520	XM515	XM510
Frequency, MHz	7.0 - 7.3	14.0 - 14.35	21.0 - 21.45	28.0 - 29.7
Number Elements	2	5	5	5
Forward Gain Free Space, dBi	6.0	9.3	9.3	9.3
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5	14.4	14.4	14.4
Front to Back Ratio, dB	20-25	20-30	20-30	20-30
VSWR Typical Minimum	1.1:1	1.1:1	1.1:1	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150	> 350	> 450	> 750
Power Rating, Watts Output	1500	1500	1500	1500
3dB Beamwidth, Degrees	70	52	52	52
Side Lobe Attenuation, dB	>35	>40	>40	>40
Boom Length, feet (m)	22 (6.7)	35 (10.7)	24 (7.3)	19 (5.8)
Boom Diameter, inches (cm)	2.5 (6.3)	2.5 (6.3)	2.5 (6.3)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)	36.3 (11.1)	24 (7.3)	18 (5.5)
Turning Radius, feet (m)	24.3 (7.4)	25.9 (7.9)	16.3 (5.0)	13.8 (4.2)
Max Mast Size, inches (cm)	2.5 (6.35)	2.5 (6.35)	2.5 (6.35)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)	9.2 (.85)	4.5 (.41)	3.4 (.32)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)	250 (113.4)	115 (52.3)	78 (35.5)
Weight, lbs (kg)	55 (25)	92 (41.8)	47 (21.1)	38 (17.2)

DUAL BAND RINGOS & YAGIS

70 CM, 2 Meters

Cushcraft is the leader in dual band antennas. Our verticals provide excellent coverage at a price below the competition. The AR270 and AR270B are favorites with the AO27 crowd. For increased coverage, our dual band Yagis lead the way. Both Yagis require only one coax feedline for true dual band performance.

AR270B 5.5/7.5 dB Dual Band Ringo

This model gives very high gain with a low angle of radiation and it is only 7.7 feet (2.35 m) high. The AR270B is computer optimized with two 5/8 wavelength collinear elements on 2 meters and four 5/8 wavelength elements on 70 cm. It is broadbanded for minimum SWR on both bands. It is easy to assemble with three rugged aluminum tubing sections, a durable mast mount and factory sealed coils for best performance.

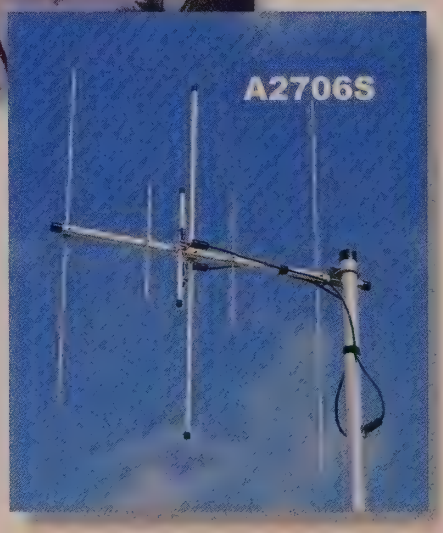
AR270
3.0 / 5.5 dB Dual Band Ringo

The "Dual Wonder" AR270 is only 3.75 feet (1.1 meters) high. It has great performance for its size, making it the most popular 2m/70 cm base antenna.

MODEL	AR270		AR270B	
Frequency, MHz	144-148	430-450	144-148	430-450
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	>4	>15	>4	>15
Gain, dBi	3.0	5.5	5.5	7.5
Power, Watts FM	250	250	250	250
Horizontal Radiation Pattern, Degrees	360	360	360	360
Height, ft, (m)	3.75 (1.13)		7.7 (2.3)	
Mast Size Range, in	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Radial Length, in (cm)	6.75 (17.1)		6.75 (17.1)	
Wind Load, ft2 (m2)	0.27 (0.03)		0.47 (0.044)	
Weight, lb (kg)	2 (0.9)		2.4 (1.09)	

A27010S and A2706S
10 and 7.8 dB Dual Band Yagis

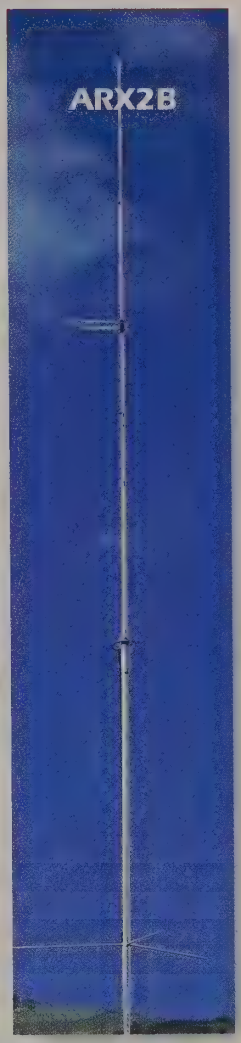
Increase your range by selecting one of the new Cushcraft dual band Yagis on 2 meters and 70 cm. You can point the antenna at stations while you are in QSO with them. This will direct more of your output power when transmitting at the same time reducing interference and increasing signal strength when receiving. These antennas are perfect for packet applications. Assembly is a snap with our fully illustrated assembly manuals.



Cushcraft pioneered dual band side-by-side Yagis. The harmonic relationship of 2 meters and 70 cm allow clean radiation patterns with minimal interaction.

MODEL	A27010S		A2706S	
Frequency, MHZ	144-148	430-450	144-148	430-450
No. Elements	5	5	3	3
Forward Gain, dBi	10	10	7.8	7.8
Front to Back Ratio, dB	20	18	20	18
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	≥4	≥10	≥4	≥20
Power Rating, Watts PEP	350	350	350	350
3dB Beamwidth, Degrees				
E Plane	52	52	66	66
H Plane	60	60	108	108
Boom Length, ft (m)	6.17 (1.9)		2.8 (.85)	
Longest Element, in (cm)	40.3 (102.4)		41 (104.1)	
Turning Radius, ft (m)	6 (1.8)		2.8 (.85)	
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)	.725 (.07)		.3 (.02)	
Weight, lb (kg)	1.8 (.81)		1.7 (.8)	

CUSHCRAFT



Some hams comment on the ARX2B:

"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time." (N7PGH)

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)

Our Ringos are Number One.

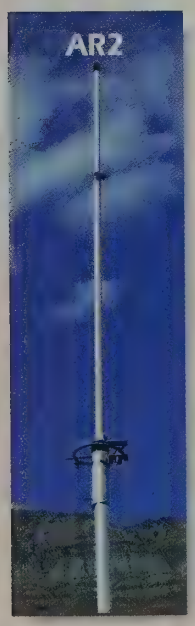
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

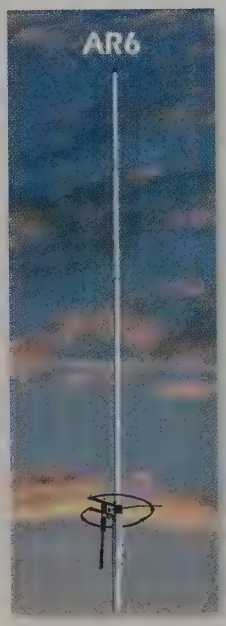
Ringo Ranger II

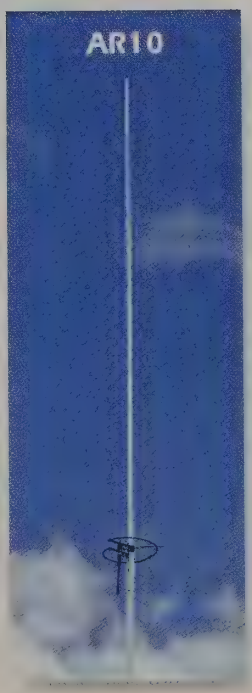
Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ft^2 (m^2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)





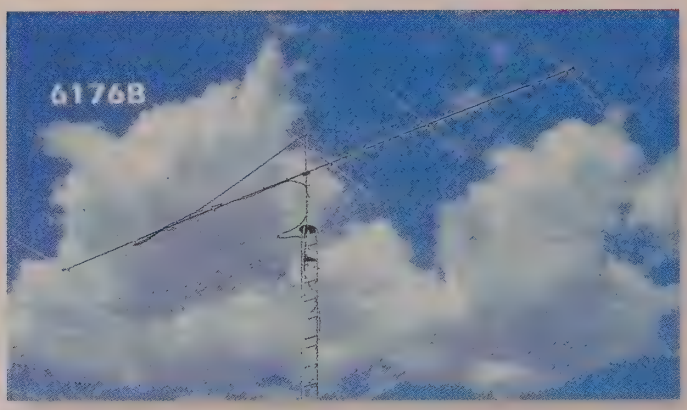


Ringo

These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ft^2 (m^2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

6 & 10 METER YAGIS



6176B

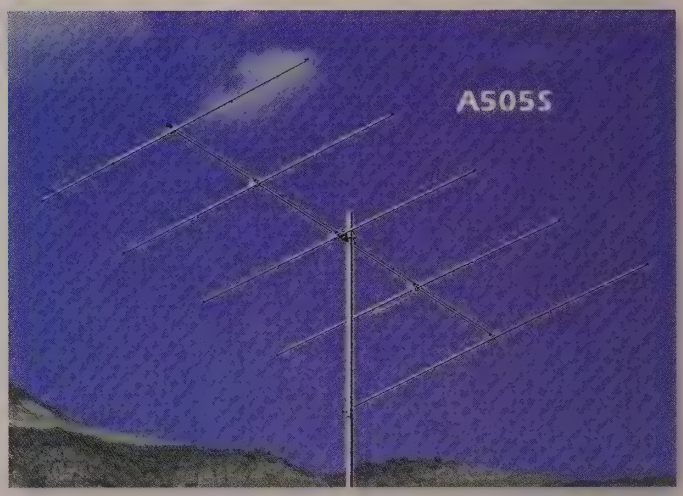
The 6176B is the favorite 6 meter contest/DX antenna for all the "Big guns". Extra wide element spacing gives maximum gain and a clean pattern. Even with a 34 foot (10.4m) boom, the 6176B weighs only 26 pounds (11.8 kg).

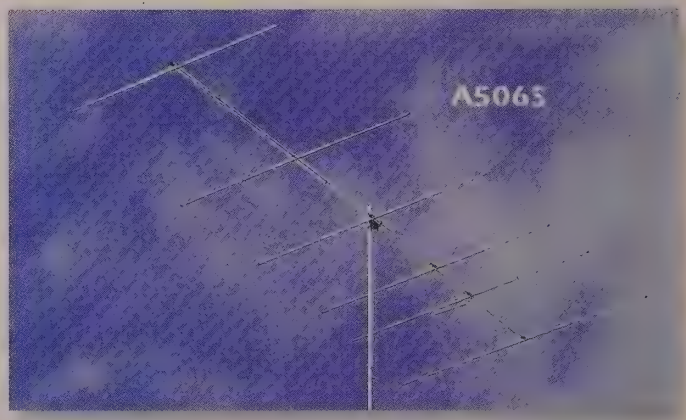
10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.

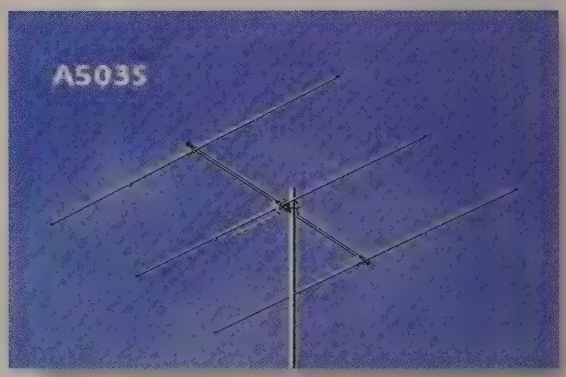
6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.





MODEL	A503S	A505S	A506S	6176B	TEN3
Frequency, MHZ	50-54	50-54	50-54	50-51	28-29.7
No. Elements	3	5	6	6	3
Forward Gain, dBi	8	10.5	11.6	14.0	8
Front to Back Ratio, dB	20	24	26	30	25
SWR 1.2:1 Typical					
2:1 Bandwidth, MHz	>1	>1	>1	>1	>1.5
Power Rating, Watts PEP	1000	1000	1000	2000	2000
3dB Beamwidth, Degrees					
E Plane	76	56	48	2 x 19	64
Boom Length, ft (m)	6 (1.8)	12 (3.7)	20 (6.1)	34 (10.36)	8 (2.44)
Longest Element, in (cm)	117 (300)	123 (312)	119 (302)	117 (297.2)	18 (5.49)
Turning Radius, ft (m)	6 (1.8)	7.8 (2.37)	11.5 (3.5)	17.7 (5.39)	9.8 (3.0)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	4.8 (.45)	2.0 (.20)
Weight, lb (kg)	7 (3.2)	11 (5.0)	18 (8.2)	26 (11.79)	9.9 (4.45)



BOOMER SIDEBAND/CW YAGIS

2 Meters

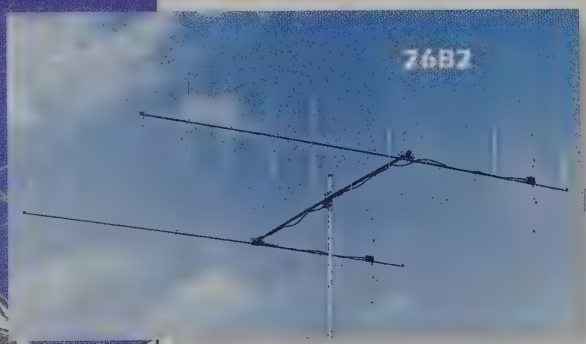
13B2 -13 Element Wideband Boomer

The 13B2 is as versatile as the 17B2 is specialized. 13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The 13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the 13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model **13B2N** has N connector.

17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the 17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

The new Cushcraft UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the 17B2 and UHF SO239 on the 13B2. When all weather performance is important, you will choose the new UltraMatched Boomers everytime.



26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The 26B2 includes two complete 13B2 antennas, stacking boom and phasing harnesses.

124WB - 4 Element Wideband Boomer

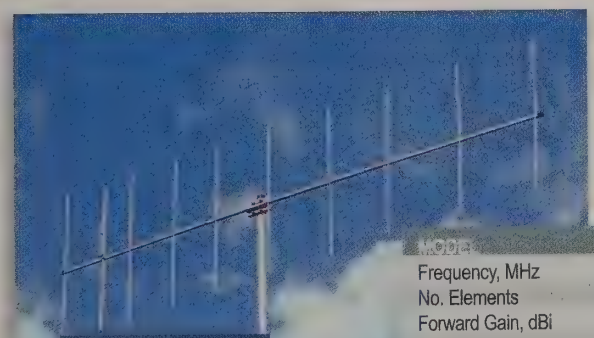
This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage.

The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted.

A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.



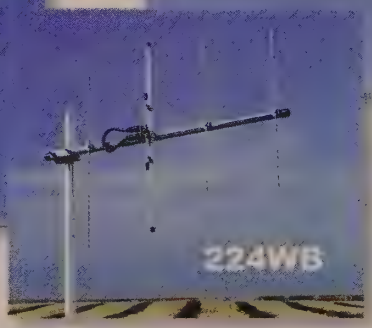
MODEL	13B2	17B2	124WB	26B2	A1483S	A14810S
Frequency, MHz	144-148	144-145	144-148	144-148	144-148	144-148
No. Elements	13	17	4	26	3	10
Forward Gain, dBi	15.8	18.0	10.2	18.8	7.8	13.2
Front to Back Ratio, dB	26	26	19	26		
SWR 1.2:1 Typical						
2:1 Bandwidth, MHz	>4	>2	4	>4	>5	≥4
Power Rating, Watts PEP	2000	2000	2000	2000	1000	1000
3 dB Beamwidth, Degrees						
E Plane	2 x 18	2 x 14.5	60	2x18	66	40
H Plane	2 x 19	2 x 15	88	2x9.5	108	46
Side Lobe Atten., dB, E Plane	>60	>60	40	>60		
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

CUSHCRAFT

A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

A14820T has a boom length of 11 ft. (3.4m), longest element length of 40.6 in. (103cm), wind area of 1.21 ft^2 (.11m^2), and a mast size of 1.25-2 in. (3.2-5.1 cm).



224WB/225WB

220 MHz Widebands

These 222 MHz beams are perfect for Packet, FM repeaters, or sideband/CW. Both antennas can be mounted for vertical or horizontal polarization.

A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.

MODEL	224WB	225WB	A14820T
Frequency, MHZ	222-225	222-225	144-148
No. Elements	4	15	10/10
Forward Gain, dBi	10.2	15.5	13
Front to Back Ratio, dB	24	24	24
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>5	>5	>4
Power Rating, Watts PEP	2000	2000	1000
3dB Beamwidth, Degrees			
E Plane	60	2x17	45
H Plane	88	2x19	50
Side Lobe Attenuation, dB E Plane	40	60	40
Boom Length, ft (m)	3 (.91)	10 (3.05)	11(3.4)
Electrical Wavelength	0.5	2.2	1.6
Longest Element, in (cm)	26.7 (68)	26.3 (67)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	5.8 (1.78)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	.23 (.021)	.95 (.09)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	5.25 (2.4)	7 (3.15)

MODEL	719B	729B	A4496S	A44911S
Frequency, MHz	430-450	430-440	440-450	440-450
No. Elements	19	29	6	11
Forward Gain, dBi	15.5	17.8	10.5	13.2
Front to Back Ratio, dB	25	25	18	20
SWR 1.2:1 Typical				
2:1 Bandwidth MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	2000	350	350
3 dB Beamwidth, Degrees				
E Plane	24	20	60	48
H Plane	19	22		
Side Lobe Atten., dB, E Plane	60	60		
Boom Length, ft (m)	13.5 (4.1)	22.17 (6.75)	2.9 (0.89)	4.2 (1.35)
Electrical Wavelength	6	9.8		
Longest Element, in (cm)	13.75 (34.9)	13.75 (34.9)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	12.5 (3.8)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)	1.25-2.0 (3.2-5.1)	1.25-1.5 (3.2-3.8)
Wind Load, ft^2(m^2)	1.2 (.11)	2.2 (.21)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	8.6 (3.9)	3 (1.4)	4 (1.8)

719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

CUSHCRAFT

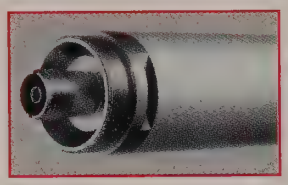
DIAMOND ANTENNAS

The Standard By Which All Others Are Judged.

Acclaimed as the technological leader in single & multiband antennas

- Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain
- UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

X500HA (UHF-Conn.)
X500HNA (Type-N Conn.)
Ruggedized Base/Repeater Antenna



COAX CONNECTION AT BASE END

HEAVY DUTY BASE/ RADIAL ASSEMBLY

STRONG JOINT COUPLINGS

X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/ installation

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

X500HNA

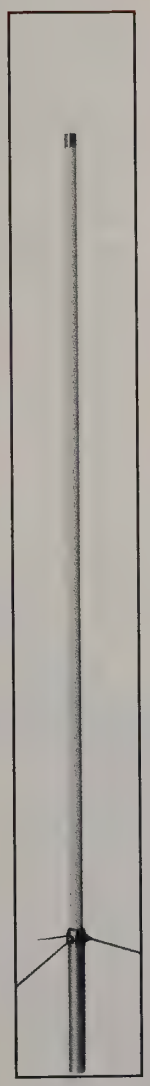
Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

Features

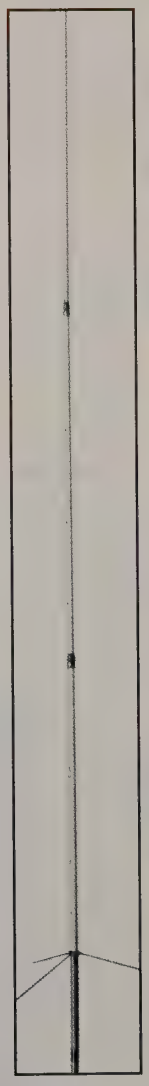
- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong–waterproof joint couplings
- Type–N Cable connection
- Wide band performance

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet



X50NA



X500HNA

DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E [1]	144	6.5	200	UHF	9.0	90
DPGH62 [1,6]	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F142A	222	5.5	150	UHF	6.0	110
F718A [2]	440	11.5	250	N	15.0	90
F1230A	1240	13.5	100	N	10.5	90

DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X300A	144/440	6.5/9.0	200	UHF	10.2	112
X510NA [3]	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
X2200A	144/222	6.0/7.8	150	UHF	11.5	112
U200	440/1240	8.3/11.7	100	N	5.9	135

DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
U5000A	144/440/1240	4.5/8.3/11.7	100	N	5.9	135
V2000A [4,6]	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A [5]	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

1 Heavy duty aluminum construction.
2 F-718A: 440-450MHz., F718L: 420-430MHz.
3 X510NJ: 144-147/430-440MHz.
4 1/4λ rated in dBi. Most requirement: 1.4"-2.4".
5 2m: 146-148; 100 watts
6 52-54MHz. only; DPGH62 adjustable from 50-54MHz.

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz.,430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.

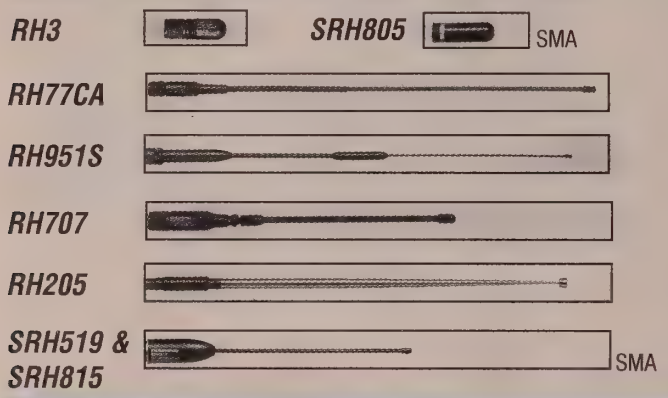
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

DIAMOND Antenna Accessories

High Efficiency HT & Scanner Antennas
HF Multiband Vertical Antenna
Duplexers & Triplexers
Dummy Loads & Coaxial Switches

RH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH Series antenna.



MODEL	DESCRIPTION	RELATIVE GAIN*
D130J	Wideband discone 25-1300 MHz. 200 W transmit 50-1300 MHz. No cable.	N/A
RH3	2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 10 watts.	+3dB

*Rated against typical stock HT antennas.

CP SERIES HF MULTIBAND VERTICAL

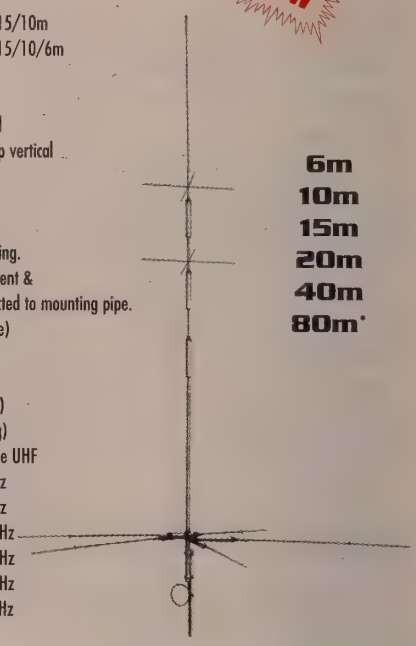
The CP5 and CP6 are multi-band trap-vertical antennas for HF bands, covering the 80*, 40, 20, 15 and 10m amateur bands. The CP6 also includes 6m band. Made from heavy-duty aluminum, the CP5 and CP6 are easily assembled, yielding excellent performance and reliability from a compact base station antenna. No additional ground radials required. Mounting hardware included.

*80m CW only. SSB requires a tuner.

NEW

Specifications

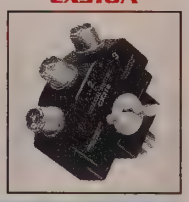
Frequency:		
CP5	80*/40/20/15/10m	
CP6	80*/40/20/15/10/6m	
Power:	200w PEP	
Impedance:	50Ω	
VSWR:	1.5:1 nominal	
Element:	1/4 wave trap vertical	
Radials:	Trap design	
	CP5 - five	
	CP6 - six	
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.	
Max. Wind Rating:	80mph (no ice)	
Mast Diameter Accatance:	1.2-2.4"	
Overall Length:	15.10' (4.6m)	
Weight:	9.9lbs. (4.9kg)	
Connector:	SO-239 female UHF	
Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner)	80m	20kHz
	40m	40kHz
	20m	100kHz
	15m	200kHz
	10m	500kHz
	6m	3.5MHz



DL30A/DL30N

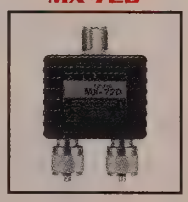
CX210A/CX210N

CX310A

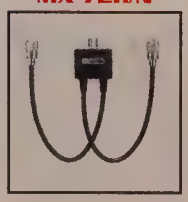


MODEL	DESCRIPTION
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

MX-72D



MX-72H/N



Duplexers/Triplexers

MODEL	MX72D	MX72H	MX72N	MX2000		MX2000D
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170	HPF 300-950
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800	800	500
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2	0.25
ISOL	60dB			60dB		
VSWR	1.2:1			1.2:1		
CONNECTOR COMPLEMENT	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (N)	(M) MIX 50 144 430 (M) (M) (M)		(M) MIX 50 144 430 (M) (M) (M)
CONNECTOR	Direct	12" Cable w/Connectors		12" Cable w/Connectors		Direct

www.rfparts.com/diamond
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

DIAMOND'S STATE-OF-THE-ART

VHF/UHF And HF/VHF Mobile Antennas– Maximum Performance Without Compromise

You've seen the rest...now own the BEST!

SG2000HD | SG7500A SG7500NMO | SG7900A | NR72BNMO | NR73BNMO | NR2C | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

MV3A Mobile Antenna System

For New HF/VHF transceivers.

Models: HV7A 5-Band HF/VHF NEW!
MV3A 4-Band HF/VHF

Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m

Recommended Antenna Mounts: K400C or K600M

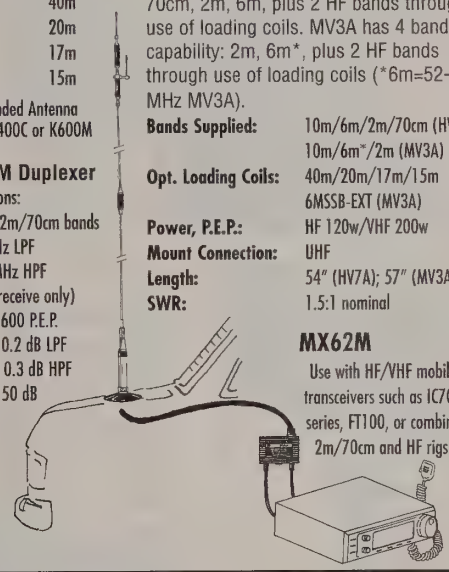
MX62M Duplexer

Specifications:
HF/6m & 2m/70cm bands
1.6-56 MHz LPF
76–470 MHz HPF
(76–120 receive only)

Watts:	600 P.E.P.
Loss:	0.2 dB LPF
	0.3 dB HPF
Isol.:	50 dB

The NEW HV7A has 5 band capability: 70cm, 2m, 6m, plus 2 HF bands through use of loading coils. MV3A has 4 band capability: 2m, 6m*, plus 2 HF bands through use of loading coils (*6m=52-54 MHz MV3A).

Bands Supplied:	10m/6m/2m/70cm (HV7A) 10m/6m*/2m (MV3A)
Opt. Loading Coils:	40m/20m/17m/15m 6MSSB-EXT (MV3A)
Power, P.E.P.:	HF 120w/VHF 200w
Mount Connection:	UHF
Length:	54" (HV7A); 57" (MV3A)
SWR:	1.5:1 nominal



MX62M

Use with HF/VHF mobile transceivers such as IC706 series, FT100, or combine 2m/70cm and HF rigs.

SPECIAL FEATURES:

- Factory pre-tuned/no adjustment
- Highest Performance antennas
- NMO and UHF (PO) base styles
- 24 Kt gold plated connector pin
- No grounding required unless noted
- Fold-over feature on most models

FOLD-OVER

Patented One-Touch Fold-over Feature
(Not available on NR72BNMO, NR73BNMO, & NR770SA.)

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR72BNMO*6	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770SA*6	2m/70cm	2.15/2.15	100	UHF	16.9	1/4λ, 1/2λ
NR770HA7	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO8	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
SG7000A*6	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7200NMO	2m/70cm	3.2/5.7	150	NMO	36.6	1/2λ, 2-5/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ

1/4λ rated in dBi.

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR2C	2m	4.1	150	UHF	55.5	1/2λ+1/4λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
SG6000NMO*6,9	6m	2.1	150	NMO	39	1/4λ
NR140A	1-1/4m	3.8	100	UHF	36.2	5/8λ
NR124	23cm	8.4	100	N	25	4-5/8λ
CR214S*6	2m/1-1/4m	2.15/3.4	120	UHF	37	1/2λ, 5/8λ
CR224A*6	2m/1-1/4m	5.0/6.0	150	UHF	68.5	7/8λ, 2-5/8λ
CR320A*6	2m/1-1/4m 70cm	2.15/3.8/ 5.5	200 100/200	UHF	37.4	1/4λ, 1/2λ 2-5/8λ
CR627B*6,9 CR627BNMO*6,9	6m/2m/ 70cm	2.1/4.5/ 7.2	120	UHF NMO	60	1/4λ, 1/2+1/4λ/ 2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/ 9.7	100	N	39	1/2λ, 2-5/8λ 5-5/8λ

* Not recommended for Magnet Mount
6 Grounding required.
7 NR770HB same specifications but in black finish.
8 NR770HBNMO same specifications but in black finish.
9 52-54MHz only

Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

DIAMOND'S Premium Antenna Mounts & Cable Assemblies

Designed for today's high performance antennas

K9000 Motorized Mount

Raise and lower your antenna with a touch of the button with Diamond's K9000 motorized mount.

- K9000TM. Trunk & hatchback installations.
- K9000LRM. Luggage rack installations.
- Accepts "Ground Independant" Antennas up to 45" Length.
- 0-90° Range. Operates from 12VDC with fused cigarette plug.
- Compatible with Diamond C-Series Base/cable assemblies.
- Recommended Antennas: SG7200NMO, SG7500NMO, NR73BNMO, SG7500A, NR2C & NR770 Series.

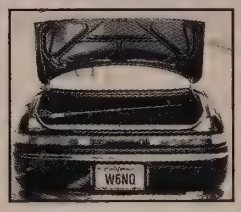
K601 Hide-away Antenna Mount

As easy as 1, 2, 3– the K601 Hide-Away Mount folds antenna safely into the trunk. Fully adjustable, fits most vehicles.

K601 HIDE-AWAY TRUNK MOUNT

Color: Black. Choice of NMO or UHF base.

Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA NR770HBNMO, NR770HB, NR770RA, SG7200NMO,SG7500A & SG7500NMO.



K601M–UHF Base
K601NMO–NMO Base
C110 10' extension cable for front radio installations.

K600

Variable Angle Trunk Mount

Deluxe aerodynamic trunk mount. Vertical adjustment range 0-9%. Four set screw, stainless steel mount assembly.

K600M SO-239 base, 16.5' coax & PL-259
K600P SO-239 base, 16.5' coax & type N

K550

Luggage Rack Mount

Adjustable luggage rack mount for new mini vans.

K550KM SO-239 base, 16.5' coax & PL-259
K550 Mount Only

K702M

Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" diameter, 3/4" height. For VHF/UHF antennas up to 50" height. Includes thin mylar protective sheet to enhance grip and protect vehicle paint. Cable: 13' RG58A/U & PL-259.

K400

Hatchback/Door Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. Recommended for high gain VHF/UHF antennas.

K400C* SO-239 base, 6.5' coax & PL-259
K400CNMO* NMO base, 6.5' coax & PL-259
K400N Type-N base, 13.5' coax & Type N

** Use C110 for front radio installments*

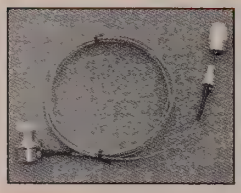
K540

Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks.

K540KM SO-239 base, 16.5' coax & PL-259
K540 Mount Only

C-SERIES CABLE ASSEMBLIES



C101

SO-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount/remote head installations.

C101NMO

Same as C101 with NMO base. For Diamond's K-Series mounts only.

C110

Extension cable for C101. 10' RG8X coax w/mini UHF connectors. Use C110 to extend cable to 16.5' for most front radio installations.

C110BNC

10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

C211

SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

C213

Same as C101 with 13.5' cable assembly.

C213NMO

Same as C101NMO with 13.5' cable assembly.

K400-3/8 C

Special Trunk Mount for 3/8 x 24 Thread Antennas

Ideal mount for Outbacker Perth, OB Jr., and other medium weight antennas.

Note: Use C110, 10ft extension for front radio installation

Adjustment:	2 axis
Power:	350 watts RMS 500 w P.E.P.
Cable	6 1/2' RG316 Teflon coax w/PL-259

Spring recommended for stiff/heavy antennas

SPM35

Magnet Mount Base

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

SPM-NMO

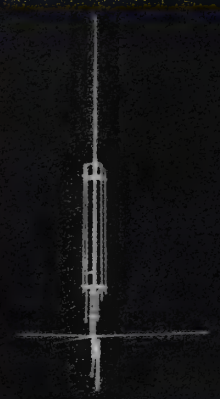
Magnet Mount Base

Similar to the SPM35, but has NMO mount.

www.rfparts.com/diamond
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

GAP: The Perfect Antenna

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may. If you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.



Eagle DX

Challenger DX

Voyager DX

This chart helps you select the right GAP antenna. W hen comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the **ENTIRE BAND**.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

A GAP antenna has no traps, coils or transformers. This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

CQ–"The GAP consistently outperformed base-fed antennas...and was quieter."

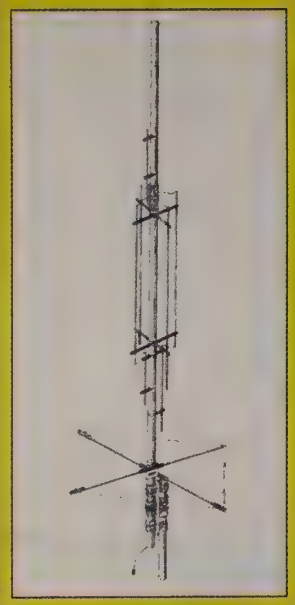
73–"This is a real DX antenna, much quieter than other verticals."

RF–"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by S units, not just DB's."

Worldradio – "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if is fed in the center."

IEEE–"Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

MODEL	BANDS OF OPERATION											HT	WT	MOUNT	COUNTER-POISE
	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m				
Challenger DX	■	■	■	■	■		■		■	■		31.5'	21 lbs	Drop In Ground Mount	3 Wires @ 25'
Eagle DX			■	■	■	■	■		■			21.5'	19 lbs	1-1/4" pipe	80" Rigid
Titan DX			■	■	■	■	■	■	■	■		25'	25 lbs	1-1/4" pipe	80" Rigid
Voyager DX							■		■	■	■	45'	39 lbs	Hinged Base	3 Wires @ 57'

GAP

ANTENNA PRODUCTS, INC.
99 N. Willow Street
Fellsmere, FL 32948
tel: (561)-571-9922
web: gapantenna.com

TO ORDER, CALL AES...

1-800-558-0411

*See Price List for **GAP** Quick-Tilt Mounts, Counterpoise and Guy Kit Prices*

HUSTLER®

VHF and UHF Fixed Station Vertical Antennas

Model G3-144 Omni Directional Fixed Station

The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for home or emergency command post.

ELECTRICAL

- Gain: 3 dB
- Omni directional radiation pattern
- Frequency Range: 144-148 MHz
- 50 ohm feed impedance
- VSWR: less than 1.5:1
- 50 ohm feed impedance
- VSWR: less than 1.5:1
- Maximum Power: 200 Watts
- Bandwidth: 6 MHz
- Impedance (nom): 50 ohms

MECHANICAL

- Termination: UHF female
- Length: 7.5'
- Weight: 2 lbs
- Wind Survival: 100 mph
- Wind Area: .5 ft
- Mounting: 1"- 1 3/4"

New!

Model G3-144

Closeup of Model G3-144

Model G6-144B Two Meter Antenna Omni Directional Fixed Station

ELECTRICAL

- Gain: 6 dB over ½ wave dipole.
- Omni directional radiation pattern
- Maximum radiation at an extremely low angle
- 50 ohm feed impedance
- Field adjustable: 140-150 MHz

MECHANICAL

- Length: 9 ft. 9 in., from 1.125" telescopic to 0.375".
- Weight: 6.8 lbs.
- Wind load: 26 lbs. @ 100 mph.
- Mounting: Vertical support up to 1.75" O.D.

Model G6-440 Omni Directional Fixed Station

ELECTRICAL

- Maximum power: 250 watts
- Gain: 6 dB
- Bandwidth: 8 MHz. Under 1.5:1 SWR
- Impedance: 50 ohm nominal
- Lightning protection: direct ground
- Termination: Type N female

MECHANICAL

- Length: 7 ft. 3 in.
- Weight: 5 lbs.
- Wind survival: 125 mph
- Mounting: Vertical support up to 2.0" O.D.

Model G6-270R Dual band Base Antenna For 2 Meter and 440 MHz

ELECTRICAL

- Maximum power: 100 Watts
- Gain: 6 dB VHF & UHF
- Bandwidth: 1.5:1 SWR
  2 MHz – 2 Meters
  10 MHz – 440 MHz
- Feed: Shunt, DC ground
- Connector: N female

MECHANICAL

- Length: 7 ft. 6 in.
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Mounting: Vertical support 1.25" – 1.5" mast

G6-270R G7-144

Model G7-144 Two Meter Antenna Omni Directional Fixed Station

ELECTRICAL

- Maximum power: 600 watts.
- Gain: 7 dB over ½ wave dipole.
- Bandwidth: 4 MHz. Under 2:1 VSWR
- Impedance: 50 ohm feed
- VSWR 1.2:1 at resonance
- Tuning range: 144-148 MHz.
- Feed: Shunt, DC ground.
- Radiator: Collinear shunt fed. Triple 5/8 wave elements in series, separated by 2 phasing coils to produce maximum gain and extremely low angle of radiation.
- Omni directional radiation pattern.

MECHANICAL

- Length: 15 ft. 4 in.
- Weight: 10 lbs.
- Radials: (4) 20.25" x 0.375" O.D.
- Connector: N type.
- Wind load: 26 lbs. @ 100 mph.
- Mounting: Vertical support up to 1.75" O.D.
- Completely self supporting.
- High strength fiberglass and aluminum.

Model G7-220 Omni Directional Fixed Station

ELECTRICAL

- Maximum power: 600 watts
- SWR resonance 1.2:1 at the antenna
- Impedance: 50 ohms

MECHANICAL

- Length: 10 ft. 2 in.
- Weight: 7 lbs.
- Radials: (4) 14.75" x 0.1875" O.D.
- Connector: Type N
- Wind load: 26 lbs. @ 100 mph
- Mounting: Vertical support up to 1.75" O.D.

Reliability & Performance... Beyond your Expectations!

See the full line of Hustler Antennas at our new Web Site!

www.new-tronics.com

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563
Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: 940.328.1409

VHF and UHF Mobile Antennas

MX Series NMO Magnetic Mount Antenna

- 3.4 dB gain
- Power rating: 200 watts
- NMO style magnetic mount.

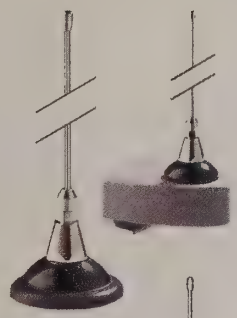
Model MX-2
2 meter, black and chrome

Model MX-2B
2 meter, all black

Model MX-220
220 MHz., black & chrome

Model MX-440
440 MHZ 5 dB gain

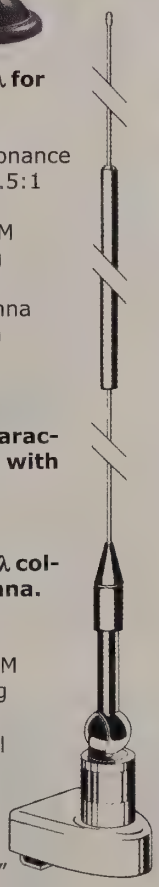
Unity Gain



Model THF
VHF/UHF Trunk Lip Mount Antenna

Model UHT-1
VHF/UHF Roof/Deck Mount Antenna

Collinear



Model CGT-220
5.2 dB Gain 5/8 λ over 1/4 λ for collinear trunk lip mount antenna.

- 1.1:1 SWR (typical) at resonance
- 4 MHz. Bandwidth under 1.5:1 SWR
- Power Rating: 200 watts FM
- Height: 4 ft. 9 in. including mount
- Spin knob to remove antenna
- 17 ft. of low loss coax with connector

Model CG-220
This model has identical characteristics at the CGT-220 but with a 3/8 x 24 threaded base.

Model CGT-144
5.2 dB Gain, 5/8 λ over 1/4 λ collinear trunk lip mount antenna.

- 6 MHz bandwidth
- 1.5:1 SWR
- Power rating: 200 watts FM
- Length: 7 ft. 1 in. including mount
- 180° swivel ball for vertical positioning
- 17 ft. coax with connector
- No drilling required

Model CG-144
Same as CGT-144 but has 3/8" x 24 threaded base.

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563
Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: 940.328.1409

Dual Band 2 meter/ 70cm Mobile Antennas

Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability. Coils and contacts are silver plated for excellent electrical connections.

Model MX-270 (far right)

- 2.4 dB/ 4dB gain
- Power Rating: 100 watts
- NMO style magnetic mount

Model MX-270B
(near right)
Black version of MX-270, and uses high quality black power paint.

Check out our prices!

Model LMC-270* (far left)

- 2.4 dB/ 4dB gain
- Power Rating: 100 watts
- NMO style

Model LMB-270* (above)
Black version of above, and uses high quality black power paint.

Models BBG-144* (far right)
& BBGT-144

- 3.4dB gain
- Power rating- 200 watts
- NMO style coil
- includes swivel ball and spring
- BBGT includes trunk mount and 17' RG-58 coax

Models BBGT-440-5 & BBG-440-5*

- 440 MHz versions of above
- 5dB Gain

***LMB, LMC, LMG and BBG** antennas are coil & whip only and require an NMO mount. All 144 Models are 2m.

Model LMG-144*

- 3.4 dB gain
- Power rating: 200 watts
- NMO style coil
- Contact: silver plated push pin

Model LMG-440-5*

- 440 MHz version of above
- 5db gain
- Power rating: 200 watts
- NMO style coil
- Contact- silver plated push pin

Model LMB-144*

- 3.4dB gain
- Power rating: 200 watts
- NMO style coil
- All Black

Model LMB-440-5*

- 440 MHz version of above
- 5db gain
- Power rating: 200 watts
- NMO style coil
- All Black

NOTE: All NMO style antennas available in frequency ranges 150-174 MHz and 450-470 MHz

LMB-144* & 440-5*

LMG-144* & 440-5*

Model UGM
VHF/UHF Magnetic Mount Antenna

Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector.

Model SF-2
Low Cost 3.4 dB Gain, 2 meter 5/8 λ for 3/8" x 24 thread mounts.

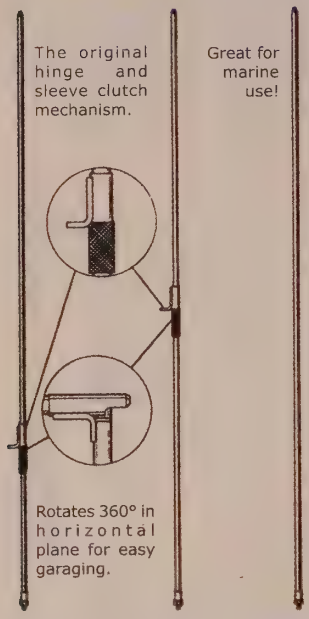
- 1.2:1 SWR at resonance
- Power rating: 100 watts FM
- Tapered stainless radiator
- Length: 4 ft.

Model SF-220
Low cost 3.4 dB gain 220 MHz. 5/8 λ for 3/8" x 24 thread mounts.

Model MKR-2 Radial Kit
Contains three de-coupling radials and mount to convert series fed mobile VHF antennas to fixed operation. Performance is comparable to many regular base antennas. Suitable for permanent installations of portable use. Heavy duty zinc plated mast bracket and hardware. Accepts antennas with standard 3/8" x 24 threaded base.

Amateur HF Mobile

10,12,15,17,20,30,40,75 and 80 Meters



MO-1 MO-2 MO-3

If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of seventeen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

Mobile HF Antennas

Hustler Masts

MO-1
Mobile mast 54" high, for deck or fender mounting. Folds over at 15" above base. Made of highest quality heat treated aluminum and chrome plated brass.

MO-2
Mobile mast, 54" high, for bumper mounting. Folds over at 27" above base.

MO-3
Mobile mast, 54" high, solid aluminum with white vinyl coating. Does not fold over.

MO-4
HF Mobile mast only 22" long. Suitable for trunk or deck mounting. Included three new tip rods. 3/8" X 24 threads on both ends.

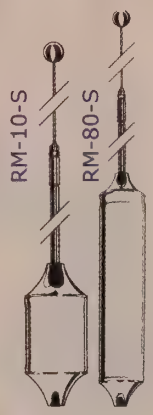
MO-4

Hustler Resonators

Standard Resonators

Power rating – 400 watts SSB

Part	Description	Approximate Bandwidth (KHz.) 2:1 SWR or Better
RM-10	10 Meter	150-250
RM-11	11 Meter	150-250
RM-12	12 Meter	90-120
RM-15	15 Meter	100-150
RM-17	17 Meter	100-150
RM-20	20 Meter	80-100
RM-30	30 Meter	50-60
RM-40	40 Meter	40-50
RM-75	75 Meter	25-30
RM-80	80 Meter	25-30



Super Resonators

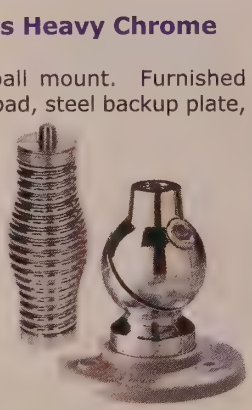
Power rating – full legal limit. Super Resonators also offer wider bandwidth, especially on 40, 75 and 80 meters.

Part	Description	Approximate Bandwidth (KHz.) 2:1 SWR or Better
RM-10-S	10 Meter	250-400
RM-11-S	11 Meter	250-400
RM-15-S	15 Meter	150-200
RM-20-S	20 Meter	100-150
RM-40-S	40 Meter	50-80
RM-75-S	75 Meter	50-60
RM-80-S	80 Meter	50-60

Professional Series Heavy Chrome

Model C-32
Hustler professional ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware, and a hex wrench.

Model C-29
Stainless steel, corrosion resistant and electroplated spring complete with 3/8" x 24 coupling stud.



Model C-30
Chrome plated steel spring complete with 3/8" x 24 coupling stud.

Resonator Spring

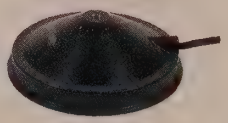
RSS-2
Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This ¾" x 3" x ½" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other.

Quick Disconnect

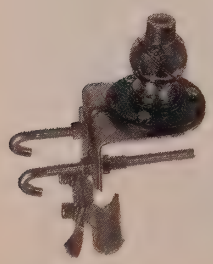
Model QD-2
100% Stainless Steel. Remove antenna fror mount in seconds with push and twist release Every part including the compression spring i manufactured from the best available 100%

stainless steel. Special design of enclosed com pression and lock assembly assures freedor against ice and dirt jam up. Accommodate small, medium and large mobile antennas Equipped with 3/8" x 24 threads, female o one end and male on the other.

MBM "Super" Magnet



- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 16 feet RG 58 coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48" in length.



Bumper Mount BM-1
Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.

Stainless Steel Mounts

- Exceptional performance and quality
- 180° adjustable reinforced stainless steel ball.
- Professional quality Lexan base for greatest mechanical stability
- Exclusive "C" backup plate allows external installation
- Supplied with all mounting hardware and cork pad
- Applicable with all Hustler and other 3/8" x 24 thread.

SSM-1 Professional Ball Mount and Spring.
SSM-2 Ball mount.
SSM-3 Stainless Steel Spring with Coupling Stud.

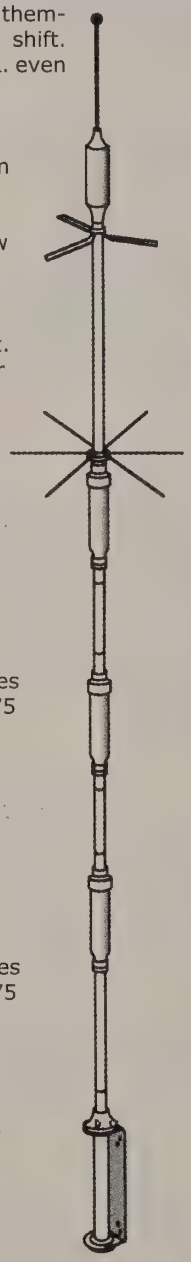
Fixed Station Multi-Band HF Vertical Antennas

Hustler, Inc. has been producing HF vertical antennas of unusual electrical performance and mechanical integrity since 1959. Many of those original verticals are still in service after over 30 years of reliable operations.

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.

- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.



Model 6-BTV

Bands	10-15-20-30-40 & 75 or 80 meters
Length/weight	24 ft. / 16.5 lbs.
Mounting	Vertical support up to 1.75" O.D.
Wind Load	29 lbs. @ 70 mph.
Power capability	Full legal limit SSB/CW
VSWR at resonance	1.15 to 1 or better
Bandwidth	VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

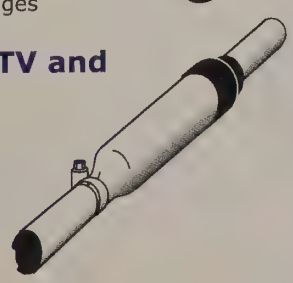
Model 5-BTV

Bands	10-15-20-40 & 75 or 80 meters
Length/weight	25 ft. 1 in. / 16.5 lbs.
Mounting	Vertical support up to 1.75" O.D.
Wind Load	29 lbs. @ 70 mph.
Power capability	Full legal limit SSB/CW
VSWR at resonance	1.15 to 1 or better
Bandwidth	VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 4-BTV

Bands	10-15-20-40 meters
Length/weight	21 ft. 5 in. / 15 lbs.
Mounting	Vertical support up to 1.75" O.D.
Wind Load	28 lbs. @ 70 mph.
Power capability	Full legal limit SSB/CW
VSWR at resonance	1.15 to 1 or better
Bandwidth	VSWR 1.6:1 at band edges

30 Meter Add-on Kit for 4-BTV and 5-BTV



Model 30-MTK

Full 30 meter band coverage
Will not affect normal operation
Easy installation
All hardware included

HUSTLER®

CB Antennas

Model RQM

An attractive antenna with a contemporary design. Features a black tapered whip and spring to match the black plastic housing. Magnetic mount, 42 inches tall, includes 16' of coax.

Model 1C-11

Our new trunk lip design in an economy package. The plastic housing is availalbe in black or white. Stainless steel whip. 42" overall length, includes 16' coax.

RQM* 1C-100* 1C-11*

Our newest magnetic mount antenna, the 1C-100 offers reliable tuning, solid performance and quality construction. A one piece plastic housing covers the coil and powerful magnetic mount. 41 inches tall, includes 15' of coax. Available in black or white.

Note: *All CB antennas on this page can be tuned for use on 10 meter band by trimming the whip.

SCB and SCB-S Antennas

Designed to meet the most demanding applications, the SCB sets new standards in electrical performance as well as durability. The large diameter, high efficiency coil is computer designed to the optimum length to diameter ratio. This results in a coil capable of easily covering 120 channels at 1000 watt power levels. The lower half of the SCB is constructed from 3/8 inch diameter, solid stainless steel rod which is virtually indestructible. A stainless steel spring is mounted on the top of the coil where shock absorption is most effective. The SCB is 46 inches tall. The SCB-S is only 35 inches tall. Both are available in red, white, black and blue (shown). It mates with 3/8" X 24 threaded mounts.

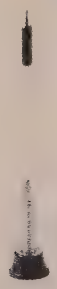
Reliability & Performance... Beyond your Expectations!

New-Tronics Antenna Corporation
One New-Tronics Place, Mineral Wells, Texas 76067-9563
Phone: **940.325.1386** Toll Free: **877.994.9499**
Fax: 940.328.1409

Come See the full line of Hustler Antennas at our new Web Site! www.new-tronics.com

Dual Band Series

Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.



NMO-2/70-SH $36.95
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH
Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

NMO-2/70B (black) $60.95
Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B
Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

NMO-2/70C (chrome) $56.95
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70
Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

MM-2/70 ..... $46.95
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B
Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

KD4-2/70 ..... $31.95
Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"
Impedance matching transformer provides high Q and deeper resonance.

NMOQ-2/70-B (black) $34.95
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

Kulglass Series

Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Larsen's unique bonding enhancer ensure the best possible grip to the glass.

KG-2/70-CX-PL $106.95
Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"
*Ground plane required for gain
Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

KG-144-UD-PL $76.95
Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144
Complete KG glass mount antenna.

KG-220-UD-PL $76.95
Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220
Complete KG glass mount antenna.

KG-440-UD-PL $70.95
Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG4400/S
Conn: PL-259
Height: 15"
Whip: WKG440
Complete KG UHF glass mount antenna with coax and connector.

Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other mounting styles available.

KD4-146 ..... $19.95
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

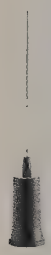
KD4-146-HQ (2m) $24.95
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD-14-2M-HW $37.95
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

Hear The Difference

NMO Mobile Antennas

Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

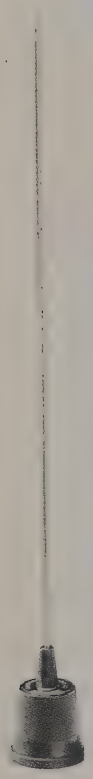


NMO-27C (chrome) $33.95

Freq:	27-31 MHz
Gain:	Unity
Power:	200 Watts
Type:	Loaded 1/4 Wave
Base:	NMO27BCO
Height:	53"
Whip:	W490

NMOQ-SPEC $11.95

Freq:	136-512 MHz
Gain:	Unity
Power:	200 Watts
Type:	1/4 Wave
Height:	21"



NMO-150C (chrome) $30.95
NMO-150B (black) $33.95

Freq:	144-174 MHz
Gain:	3dBd
Power:	200 Watts
Type:	5/8 Wave
Base:	NMO150BCO
Height:	51.75"
Whip:	W490

NMO-220C (chrome) $30.95
NMO-220B (black) $36.95

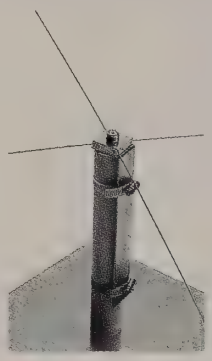
Freq:	220-225 MHz
Gain:	Unity
Power:	200 Watts
Type:	5/8 Wave
Base:	NMO220BCO
Height:	34.5"
Whip:	W400

NMO-440C (chrome) $29.95
NMO-440B (black) $35.95

Freq:	440-460 MHz
Gain:	4.5dBd
Power:	200 Watts
Type:	5/8 over1/2 Wave
Base:	NMOUHFBASEB
Height:	33""
Whip:	W154

Base Station Antennas

Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



BSA-K $50.95

Freq:	144-512 MHz
VSWR:	1.5:1 or less
Power:	200 Watts
Conn:	UHF Female
Whip:	51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra).

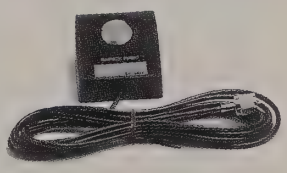
Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

NMO-K $15.95
Motorola style roof mount

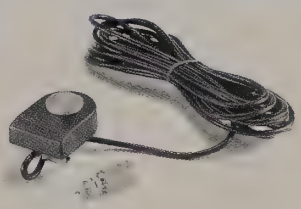
Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

NMO-MM $31.95
Motorola style magnetic mount



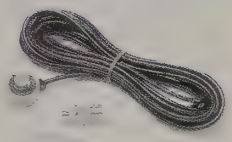
Size: 3-1/2" x 3" Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

NMO-TLP $29.95
Motorola style trunk gutter bracket, black



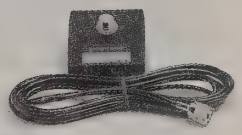
Size: 1-3/4" x 1-3/4"
Coax: 17' RG-58A/U
Conn: PL-259

PO-K $27.95
SO-239 female type roof mount



Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259

PO-MM $34.95
SO-239 female type magnetic mount



Size: 3-1/2" x 3" Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

TMB-34 ..... $5.95
TMB-34B (black) $7.95
Chrome trunk mounting bracket for NMO antenna.

Size: 1-5/8" x 1-5/8"
Mount: NMO

Parts and Accessories

W-490 ..... $9.95
Chrome .100 tapered replacement whip for 144 MHz. (49")

W-490B $12.95
Black .100 tapered replacement whip for 144 MHz. (49")

W-2/70B $26.95
Black .100 dia. replacement whip for NMO 2/70B (approx. 31")

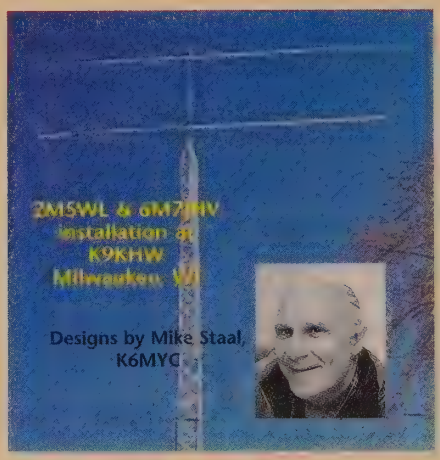
RADIALL/LARSEN
antenna technologies

Radiall/Larsen Antenna Technologies
3611 NE 112th Avenue
Vancouver, WA 98682
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

M² antenna systems, inc.

.... a blend of technical expertise, common sense, and real world moxy with over twenty-five years of experience designing and building antennas that satisfy the most demanding operator. The antenna of choice for high performance VHF/UHF work.

Using the latest computer optimization programs and their decades of VHF antenna design experience, M² engineers maximize the performance of every antenna they make. Gain, beamwidth, F/B, and bandwidth are tailored, model by model to enhance your application. They're built for long-term service with no degradation of performance or reliability. Structurally strong – all are rated for 100MPH wind survival. Most use a unique T-match system, with balun, and feed connectors O-ring sealed in a CNC machined block. Internal connections are encapsulated in a high-dielectric space-age silicone gel. Type-N feed connectors feature a beryllium copper gold-plated center pin. Power handling is rated at 1500 watts. All models shown are UPS shippable.



6 Meter Antennas

Model	6M-3	6M-5X	6M-7JHV	6M9KHW	6M-HO-LOOP
FREQ RANGE	50-50.6	50-50.5 MHz	50-50.4 MHz	50-5.4	50-50.3 MHz
ELEMENTS	3	5	7	9	1 Loop
BM LGTH/DIA.	6.75'/1.5"	18' / 1.5"	30.6' / 1.5"	49.3' / 2"-1/2"	29.5" Sq.
GAIN	6.4 dBd	9.4 dBd	10.9 dBd	12.7dB	4 .4 dBd
F/B	20 dB	12dB	25dB	23dB	N/A
BEAMWIDTH	E 65°/H80°	E 42°/H 50°	E 40°/H 42°	E 34°/H 39°	Omni, Horiz.
VSWR	1.1 @ 50.175	1.1 @ 50.175	1.2:1 Typ.	1.2:1 Typ	1.2:1 Typ
WIND AREA	1.2 Sq ft.	2.2 Sq ft.	5 Sq ft..	5.9 Sq.ft	0.1 Sq.ft
WIND SURV	100 MPH	100 MPH	85 MPH	100 MPH	100 MPH
WEIGHT	6 lbs	9 lbs	17 lbs	35 lbs	2 lbs
PRICE	**$125.95**	**$209.95**	**$261.95**	**$499.95**	**$94.95**

Microwave

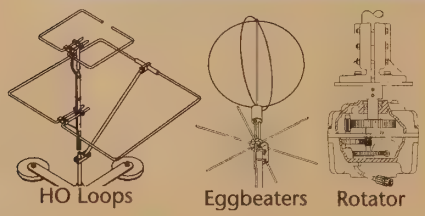
Model	23CM-22EZ	23CM-35
Freq Range	1250-1300 MHz	1250-1300 MHz
Bm Length	5' 2"	10' (13 WL)
Elements	22	35
Gain	16.0 dBd	18.4 dBd
F/B	26 dB	28 dB
Beamwidth	E 24°	E 17°/H 18°
VSWR	1.1:1	1.2:1 typ.
Wind Area	0.3 sq. ft.	0.6 sq. ft
Wind Surv	100 mph	100 mph
Weight	2 lbs	4 lbs
Price	**$94.95**	**$156.95**

2 Meter Antennas

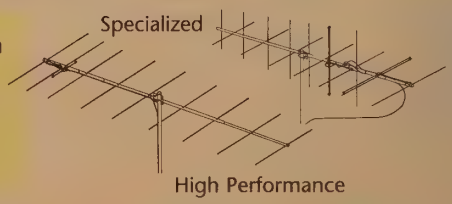
Model	2M-4	2M-7	2M9FM/2M9SSB	2M-12	2M-5WL	2M-18XXX	2M-8WHLD	2M-CP14	2M-CP22	2M-HO-LOOP	EB-144
Freq Range	144-148 MHz	144-148 MHz	FM or SSB	144-148 MHz	144-148 MHz	144-146 MHz	144-144.7	143-148 MHz	144-148 MHz	144-144.5 MHz	130-150 MHz
Elements	4	7	9	12	17	18	21	7H/7V	11H/11V	1 Loop	2 (loops)
Bm Lgth/Dia.	4'/ 1"	8.8'/ 1"	14.5'/ 1"- ¾"	19.5'/ 1½"-1"	33' /1½"- ¾"	36.3'/1½"- ¾"	55'/2.5"-1.5"	10.5'/ 1"	18.5"/ 1½"- 1"	11.5" Sq.	NA
Gain	7.5 dBd	10.3 dBd	12.0 dBd	12.8 dBd	14.8 dBd	15.3 dBd	17 dbd	10.3 dBdc	12.5 dBdc @11°	4 dBd	4 dBd
F/B	20 dB	20 dB	24 dB	25dB	22 dB	25 dB	24	20 dB	25 dB typ.	N/A	NA
B/W (E/H)	54°/74°	46°/54°	35°/40°	32°/36°	26°/29°	25°/29°	20°/21°	52° Circular	40° Circular	Onmi, Horiz.	Omni, Horiz
VSWR	1.5:1 max.	1.3:1 typ.	1.4:1 max.	1.2:1	1.2:1	1.2:1	1.2:1	1.3:1 typ.	1.4:1 max.	1.2:1 Typ.	1.5:1 max
Wind Area	0.5 sq. ft.	.74 sq. ft.	1.2 sq. ft	1.5 sq. ft.	2.7 sq. ft.	2.9 sq. ft	5.5 sq. ft.	1.1 sq. ft.	2.5 sq. ft.	.0.25	.07 sq. ft.
Wind Surv	100 mph	100 mph	85 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph
Weight	3 lbs	4 lbs	6 lbs	8 lbs	12 lbs	14 lbs	38 lbs	6 lbs	12 lbs	1 LB	1.4 lbs
Price	**$94.95**	**$115.95**	**$125.95**	**$167.95**	**$209.95**	**$240.95**	**$555.95**	**$177.95**	**$240.95**	**$43.95**	**$136.95**

220MHz & UHF

Model	222-10EZ	222-5WL	420-50-11	432-9WL	432-13WLA	436-CP30	436-CP42UG	440-18	440-21ATV	EB-432
Freq Range	222-226 MHz	222-226 MHz	420-450 MHz	420-440 MHz	430-434 MHz	430-440 MHz	430-438 MHz	420-453 MHz	1420-440 MHz	144-144.5 MHz
Elements	10	15	11	28	38	15H/15V	21H/21V	18	21	1 Loop
Boom length	9'9"	23'3"	5' (rear mt.)	21' (9WL)	30.75' (13 WL)	9.75' (13 WL)	18'10"	11'4"	14'6"	11.5" Sq.
Gain	12 dB	15.2 dB	11.3 dB	17.3 dB	18.6 dB @ 432	14.5 dBdc	16.8 dBdc	14.5 dBd	15.9 dBd	4 dBd
F/B	23 dB	21 dB	20 dB	24 dB	22 dB	22 dB	25 dB	23 dB	23 dB	N/A
B/W (E/H)	34°/39°	26°/28°	34°/43°	20°/22°	16°/18°	30° Circular	21° Circular	27°/32°	22°/24°	Onmi, Horiz.
VSWR	1.2:1 max.	1.2:1 typ.	1.2:1 typ.	1.2:1 (425-436)	1.2:1 max.	1.4:1	1.5:1 max	1.2:1 typ.	1.2:1 max.	1.2:1 Typ.
Wind Area	.0.9 sq. ft.	1.5 sq. ft.	.575 sq. ft	1.6 sq. ft.	2.5 sq. ft.	1 sq. ft.	2 sq. ft.	0.875 sq. ft.	1.25 sq. ft.	0.25
Wind Surv	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph	100 mph
Weight	4 lbs	9 lbs	4 lbs	8 lbs	10 lbs	5 lbs	7.8 lbs	5 lbs	4.6 lbs	1 LB
Price	**$104.95**	**$167.95**	**$94.95**	**$177.95**	**$240.95**	**$240.95**	**$282.95**	**$125.95**	**$146.95**	**$125.95**

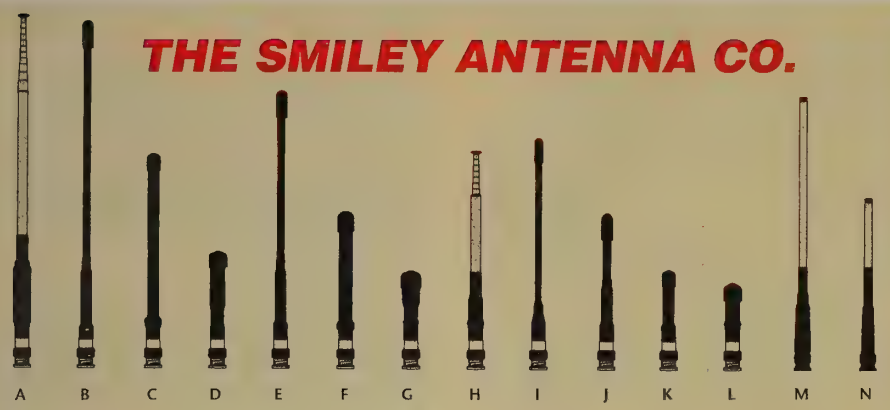


To view complete specification sheets on individual antennas, antenna positioner/control units; and the latest M² news, check their web site at:
www.m2inc.com



 See the Price Guide for Additional Models, Stacking Kits, Mounts, Antenna Rotator/Controller and DX-Series HF Beams

THE SMILEY ANTENNA CO.



HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

TS Thin Stick 1/4-wave telescoping dual band antenna for 144 and 220MHz bands **$16.95**

SS-II Super Stick II *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed **$19.95**

SS-II/COMBO Super Stick II Combo *(D)* Same as above, but includes a 2m stubby duck **$26.95**

5/8 SLD-2 5/8 Slim Duck *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long..... **$17.95**

5/8 SLD-2 COMBO 5/8 Slim Duck Combo *(D)* As above, but includes a 2m stubby duck.. **$24.95**

RD-2 Regular Duck *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs **$14.95**

RDS-2 Stubby Duck *(D)* Tuned, for 2m .. **$14.95**

SS-III Super Stick III 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¾" collapsed **$19.95**

SS-III/COMBO Super Stick III/Combo *(G)* As above, but incl. a 220MHz stubby duck **$26.95**

5/8 SLD-220 5/8 Slim Duck *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna **$17.95**

5/8 SLD-220 COMBO 5/8 Slim Duck Combo *(G)* Same as above, but includes a 220MHz stubby duck antenna **$24.95**

RD-220 Regular Duck *(F)* 220MHz, tune **$14.95**

RDS-220 Stubby Duck *(G)* As above **$14.95**

SS-IV Super Stick IV *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed **$19.95**

SS-IV/COMBO Super Stick IV Combo *(K)* Same as above, plus has 440MHz stubby duck ... **$26.95**

SL-440 Slimline *(I)* 440MHz, ¼-wv. flex . **$12.95**

5/8 SLD-440 5/8 Slim Duck *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna **$17.95**

5/8 SLD-440 COMBO 5/8 Slim Duck Combo *(K)* As above, plus has a 440MHz stubby... **$24.95**

RDS-440 Stubby *(K)* 440MHz, tuned..... **$14.95**

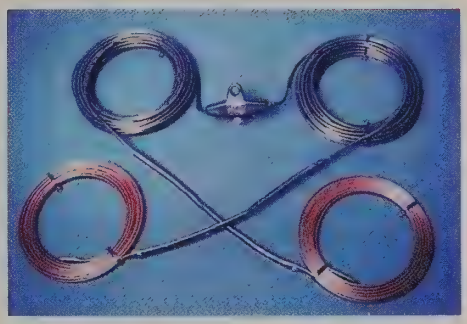
RDMD-440 Mini Duck *(L)* Like above.... **$14.95**

FLX 1/2 WAV-2M Flex-Coil *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.95**

270A *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440 MHz). The 270A is also available with SMA..... **$19.95**

TAQ 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.95**

www.iacantennas.com



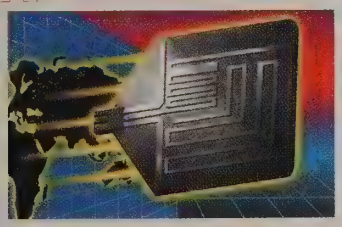
Double Bazooka Half Wave Antennas are constructed with a flat-top of 50Ω coax and a section of 300Ω transmission line at each end. The shield is split in the middle, but the center conductor and insulation are left intact. The feedline connects to the split shield which becomes the radiating element. This results in quiet, broadband operation with 98% efficiency and a 50Ω balanced feedpoint without a balun. Mount it horizontally or as an inverted V. Handles legal RF power limit. Has weatherproof center insulator, feeds directly with 50Ω coax with PL-259 connector. The 80m version will operate efficiently on 80-10m with antenna tuner.

160m Bazooka 1.8 MHz (160M), 248'. **$195.95**
80m Bazooka 3.5 MHz (75-80M), 121' **$135.95**
40m Bazooka 7 MHz (40M), 64 ft **$115.95**

Double Bazooka Half Sloper Antennas An extremely broad-banded antenna that can operate efficiently across an entire Ham band with less than a 2:1 VSWR. It's a quarter wavelength long, constructed from 50Ω coax in combination with a 300Ω transmission line end section. (looks like one-half of the Double Bazooka pictured). Mounts from a tower or vertical metal support for optimum results, and feeds directly with 50Ω coax with PL-259. Ground return is accomplished through the metal support. Handles full legal power.

160m-S 160M, 127 ft **$140.95**
80m-S 75-80M, 67 ft., operates 80-10m with antenna tuner **$115.95**
40m-S 40M, 33 ft. **$105.95**

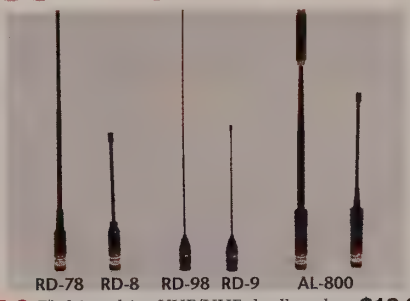
ANTENNAS AMERICA, INC.



Freedom Antenna A concealed, disguised antenna system that mounts on-glass inside the vehicle. It uses an advanced, copper-etched serpentine array contour design. At .013" thick, its ultra-thin interior-mount design virtually disappears into your windshield. At only 3½" square, its "stealth-like" finish blends totally into the glare band. Simply locate the recommended area on your windshield interior. Then, apply like a decal, route the cable and connect it to your radio. No holes to drill, no magnet scratches, no suction cup smudges and no clips. It's limited to 75W of power.

HVA-146 140-155 MHz **$69.95**
HVA-460 435-480 MHz **$69.95**

PREMIER
communications



RD-9 7" thin whip, VHF/UHF dualband **$18.95**

RD-98 17" thin whip, 2.15 dBi gain on 2m, 3.2 dBi gain on 70cm **$24.95**

RD-8 6½" rubber duck, VHF/UHF dualband **$14.95**

RD-78 15" tall rubber duck, 2.15 dBi gain on VHF, 3.2 dBi gain on UHF..... **$19.95**

AL-800 2-in-1 antenna: 34" telescoping whip which collapses to 10"; 8" "rat tail" antenna. 3.2 dBi gain on VHF, 5.5 dBi gain on UHF **$29.95**

Once again

THE ASSOCIATES®

AES is bringing you instant approval on a revolving credit basis. Apply in person only.

Benefits:

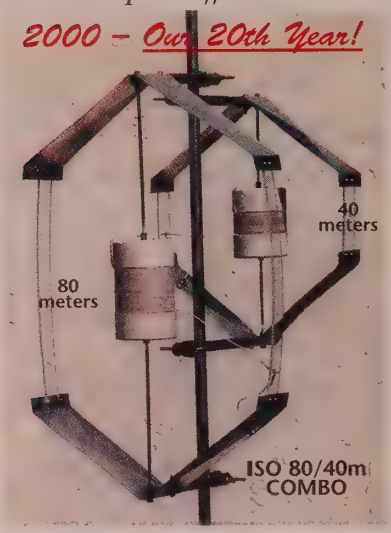
- Quick Approvals
- No Down Payment or Annual Fee
- Open Line of Credit for Future Purchase
- Makes Budgeting Easier

ISOTRON
BILAL COMPANY

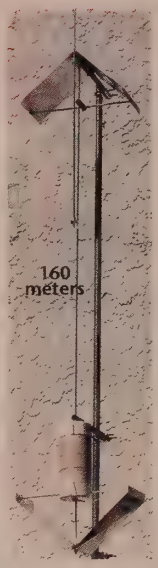
Antennas for Very Limited Space
Simple & Effective...

See product reviews **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
Copies available send SASE: **BILAL COMPANY**
137 Manchester Dr. Florissant, CO 80816 • 719/687/0650

2000 – Our 20th Year!



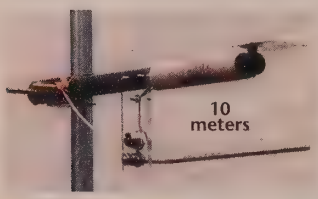
- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.

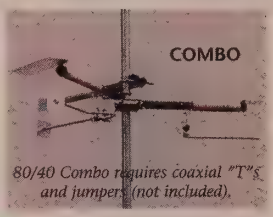


Common Specifications: 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omnidirectional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

Individual Specifications:

Model	ISO 160C	ISO 80	ISO 40	ISO 20	ISO 15	ISO 10	ISO 6
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters	6 meters
Freq.	1.8-2.0MHz	3.5-4.0MHz	7.0-7.3MHz	14-14.35MHz	21-21.450MHz	28-30MHz	50-54MHz
hxwxd (in.)	9.5 x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4	16½x2x4
BW	100 KHz	110KHz	250KHz	350KHz	450KHz	1MHz	1.25MHz
Windload	1.697 sq. ft	1.37 sq. ft.	1.0 sq. ft.	0.23 sq. ft.	0.23 sq. ft.	0.16 sq. ft.	0.13 sq. ft.
Weight	7 lbs.	6 lbs.	4 lbs	2 lbs	2.0 lbs	1.5 lbs	1.5 lbs.
PRICE	**$169.95**	**$95.95**	**$85.95**	**$74.95**	**$64.95**	**$64.95**	**$69.95**





80/40 Combo requires coaxial "T"s and jumpers (not included).

Multiband Models (top & right)

ISO 80/40 COMBO Covers same as individual model specifications above. Operate 80/40 meters with one feed line 32"x16"x30", 2.37 sq. ft. 10 lbs..... **$168.95**

ISO 20/15/10 COMBO Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line line..... **$187.95**

SPECIAL ORDER! – **You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 12m in the 20/15/10 Combo. MARS, CAP & Commercial models available.**

Van Gorden Engineering

DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

D-80 80/75m, 130' **$32.95**
D-40 40m, 66' **$29.95**
D-20 20m, 33' **$28.95**
D-15 15m, 22' **$27.95**
D-10 10m, 16' **$26.95**

Shortened Dipoles Construction is the same, and includes traps as shown above.

SD-80 75/80m, 90' **$36.95**
SD-40 40m, 45' **$34.95**

ALL BANDER **All Bander Dipole** Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP **$29.95**

SHORTY **All Bander** As above, but with loading coils to shorten the length to 70 ft. overall **$44.95**

MULTIBAND ANTENNAS

G5RV Covers 3.5 to 30MHz, +1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31 ft. long section of 300Ω KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled **$50.95**

G5RV JR 7–30MHz , 52', 17 ft. twinlead . **$24.95**
G5RV-E 3.5–30MHz, 102', 31 ft. twinlead **$28.95**
G5RV-M 1.8–30MHz, 204', 65' twinlead ... **$50.95**

ALPHA DELTA COMMUNICATIONS, INC. (AA)

SHORTWAVE ANTENNAS

DX-SWL Shortwave Sloper Antenna Covers 13, 16, 18, 19, 21, 25, 31, 41, 49, 60, 90 & 120 meter shortwave bands, plus the AM broadcast band. Sloper design provides outstanding reception of low-angle DX signals. Multi-band transmit capability with an antenna tuner, handles up to 2000 watts. Overall length is 60 ft., requires 50Ω coaxial cable **$79.95**

DX-ULTRA **Shortwave Dipole** Covers AM broadcast through 30MHz. Efficient, low-noise, broadband performance for medium wave, tropical, international SW, military, government, embassy, maritime, aircraft, commercial and utility frequencies. Designed with inductors, parallel wire elements and center insulator with built-in static electricity protector. Length is 80 ft. – may be installed as a dipole, inverted-V, or full sloper. It can be used with an antenna tuner as a transmit antenna up to 2kW. Connector accepts coaxial cable or balanced line. Assembled..... **$119.95**

Ventenna

Ventenna™ Get around those antenna restrictions and finicky neighbors. The Ventenna is virtually unnoticeable. It looks like part of a normal structure. To install, just slip over an existing 1"-2½" plumbing vent pipe, connect the coax – you're on the air. Ready to go! No tuning or measuring required. Single band models for 2m, 220MHz or 440MHz and a 2M/440 MHz dual bander.

VT-14 2m, 3' tall, 2.6dB gain **$63.95**
VT-22 220MHz, 25", 2.6dB..... **$63.95**
VT-27 2m/440MHz dual band ... **$94.95**
VT-44 440MHz, 14" tall, 2.6dB .. **$63.95**
VT-15S 3' scanner model, 2.6dB **$63.95**

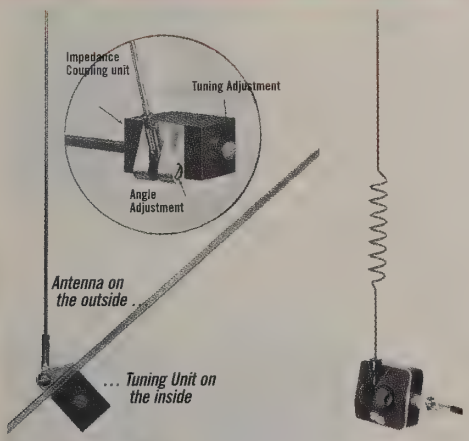
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

146/437-10 Pictured is Gerald Schmitt, KK5YY, working VE6EGN on the AO27 amateur radio satellite using a Yaesu VX-1R with 500mW output and connected to an Arrow 146/437-10 antenna. KK5YY worked from many Alaskan grid squares during his 1998 trip, including a contact from the Arctic Circle.

The Arrow is designed specifically to allow portable satellite operation using just an HT. This means engineering it to provide maximum gain and efficiency in the smallest practical size and weight.

The boom construction is 3/4" square aluminum stock, 37½" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety **$73.95**

ANTENNA SPECIALISTS

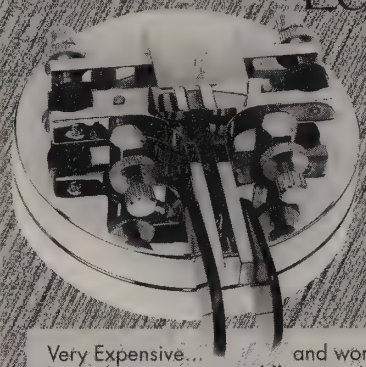


"ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small Tuning Unit attaches to the glass inside the vehicle, and couples capacitively through-the-glass to the Radiating Element mounted on the outside. Installs with easily removable adhesive. Includes adhesive, 15 ft. of coaxial cable with PL-259 connector • 100W • 144-174MHz (APR-151.3), 138-150MHz (AP-143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (AP-143) stainless steel, black DURA-COAT ™ finish whip • 15' RG-58/U cable with PL-259

APR-151.3 *(left)* 2m, On-glass, 33" high ... **$69.95**
AP-143 *(right)* 2m cell "look-alike," 23" **$69.95**

The Returning Legend...



...joins our family of Radio Products

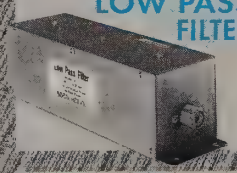
Very Expensive... and worth it! The legendary **Mercury paddle** is available again. Hand made in very limited quantities, an unmatched instrument for your expression. Simply the finest iambic paddle ever offered.

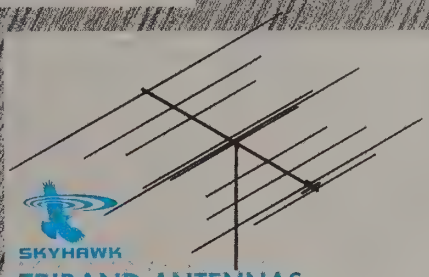
BALUN

Bencher **Balun** - a ferrite free votage mode balun ideal for dipoles and inverted vees 3-30 mHz. Finest rust free materials. Rated 5 KW peak.

Fighting and preventing TVI problems ALWAYS requires a good **Low Pass Filter**. Ours is the best (over 80db attenuation above 50 mHz) and handles 5KW peaks! It keeps you on the air to enjoy your hobby.

LOW PASS FILTER





SKYHAWK

TRIBAND ANTENNAS

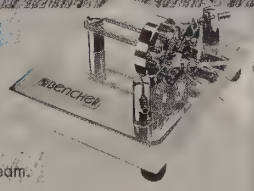
The Killer **Tribander** - 10 elements on a 24' boom, 3 active on 20, 3 on 15 and 4 on 10 meters. Monoband performance on each band - plus reduced performance on 17 and 12 meters. NO LOSSY TRAPS! All stainless hardware. 2.5 KW Balun included. The most conservative specification in the industry, the best actual performance.

butternut ANTENNAS

These patented, multiband antennas have been the standard for years. NO LOSSY TRAPS, and on most bands the entire length of the vertical radiates for most effective performance. Used with either radials or the Butternut Counterpoise, these antennas are more efficient than ANY "no radial" vertical. True classics in design and performance.

VERTICAL ANTENNAS

IAMBIC PADDLE



Bencher **Iambic paddles** set the standard of comparison for morse code keyerpaddles world wide. Unmatched responsiveness and superior quality make sending CW a dream.

Bencher's **hand key** is for morse operators preferring that traditional approach - yet made with the finest, modern materials. In the toughest conditions, when nothing else can get through, morse from this masterpiece will make the circuit.

HAND KEY

BENCHER, INC.
831 N. Central Avenue
Wood Dale, IL 60191

630-238-1183
http://www.bencher.com

MFJ ENTERPRISES,

HT RANGE EXTENDERS

MFJ-1714 Long Ranger™ 2M Halfwave For really long range, this MFJ end-fed halfwave is hard to beat. It out performs a 5/8 wave on a handheld because the 5/8 wave needs a ground plane where the MFJ halfwave does not. It is shorter, lighter, has more gain & places less stress on your antenna connector than a 5/8 wave. When collapsed, it performs like a rubber duck. It is 40" extended and 10½" collapsed.... **$16.95**

MFJ-1712 Dual Bander™ 2M & 440MHz New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7¼" collapsed, 19" extended... **$14.95**

MFJ-1710 Pocket Linear™ 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24½" and carry on your QSO. Pocket clip. 5¼" collapsed..... **$9.95**

RUFFRIDER™ MOBILE ANTENNAS (mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

MFJ-1402 Junior 16½" ant. fits in any garage on any vehicle. 3dB gain on 2M, 5.5dB gain on 440MHz. Handles 100W. No fold-over..... **$34.95**

MFJ-1412 High Power Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz..... **$49.95**

MFJ-1422 High Gain 41½" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz **$49.95**

MFJ-1432 Highest Gain Tall 62½" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W **$69.95**

RUFFRIDER™ MOBILE MOUNTS

Super heavy duty antenna mounts with SO-239 base. Use adapter for NMO. Includes 10 ft. of low loss coaxial cable with PL-259 connector. Bases are heavy duty and super rigid to reduce SWR flutter due to wind vibration. Double Allen set screws fasten the radiator and a specially treated center pin provides excellent electrical connection. Allen wrenches, protection caps and locking screws included.

MFJ-340 Mirror/Luggage Pipe Clamp Mount Mounts on support rod of mirror, luggage rack or spare tire carrier of a truck, van, RV or SUV. Mounts on any horizontal, vertical or angled rod/pipe up to 5/8" in diameter . Secures VHF, UHF and medium size HF antennas even at highway speeds. Convenient thumb and finger turn knob makes fold-over operation quick and easy. Locks in 12 different positions **$34.95**

MFJ-345 Trunk/Hatchback Lip Mount Mounts to any lip on your vehicle. Extra-wide 4" lip and large reinforcing tabs on each side safely distributes the load. Secures large VHF, UHF and medium size HF antennas even at highway speeds. Scratch-proof rubber guard protects vehicle's finish **$34.95**

COMET™

HF/VHF/UHF MOBILE ANTENNA

For the radios that operate HF/6M/2M/70cm

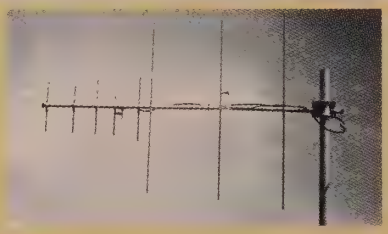
CA-UHV Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20 and 17 meters are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

Only 7 ft. 2 inches tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all of the multiband radios, including the FT-100, IC-706MKIIG, FT-847, etc. – *see the index under duplexers for selection.*

CA-UHV HF/6M/2M/70cm antenna . **$139.95**
L-14 20M coil..... **$36.95**
L-18 17M coil..... **$29.95**
CF-360B 1.3-30/50-470MHz duplexer **$69.95**
CF-530 1.3-90/125-470MHz duplexer . **$69.95**

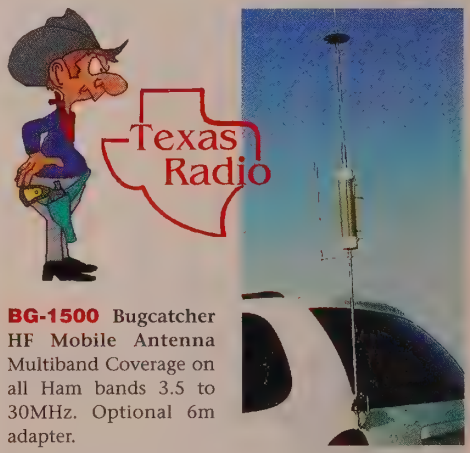
HA-4S HF Mobile Antenna *(right)* Automatic bandswitching between four HF bands without changing coils or moving plugs. Standard coils include 40, 15, 12, 10M. 20M coil optional. Compact and lightweight, only 4 ft., 10 inches tall. Mounts on trunk-lip style bracket. Construction includes gold-plated PL-259 at the base, and a threaded collar that unscrews to expose a hinged base that allows 90° fold-over for garaging, etc. ..... Closeout **$149.95**



CYA-240 Dual Band 2M/70cm Antenna Single boom design with five UHF elements in front of three VHF elements, only 5' 3" long. Separating yagis from each other produces the best radiation pattern. Gain: 7.4 dBd on 144–148MHz; 9.5dBd on 440–450MHz. F/B ratio is 18dB. The included power divider allows single feedline operation. High-grade aluminum and stainless steel hardware. Elements are secured with wing nuts making portable use easy. Horizontal or vertical mounting. Power rating: 300W SSB, 150W FM/CW. Accepts masts 1¼ to 2½", 4 lbs. 7oz..... **$99.95**

CA-52HB4 Wide Band 6 Meter Beam • HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54MHz) VSWR • 10.4 dBi gain • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz..... **$119.95**

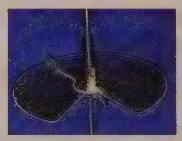
GH-50 6M Vertical Antenna Omni-directional • 50MHz band frequency • One-piece white fiberglass with tuning stub on top • 7 feet, 10 inches long • 50Ω impedance • 1.5:1 or less VSWR • 1MHz, tunable • 2.5dBi gain over 1/4-wave • Maximum power: 120W, SSB/60W, FM • SO-239 connector • 2 lbs, 10 oz **$99.95**



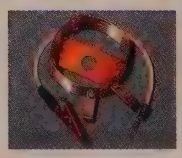
BG-1500 Bugcatcher HF Mobile Antenna Multiband Coverage on all Ham bands 3.5 to 30MHz. Optional 6m adapter.

• Easy band switching to pre-tuned frequencies on any band – just move the tap • Adjustable capacity hat for fine tuning • 1500W power rating, 3/4 inch corona ball • 24" stainless steel base, total length 90 inches • Quick disconnect..... **$169.95**

Tunable Capacity Hat



Optional MM-1 Mobile Matcher



ADAPT-6M shown with Hi-Q resonator

ADAPT-6M 6M Adapter for BG-1500 ..... **$19.95**

MM-1 Mobile Antenna Matcher Installs between Bugcatcher and mount. Moving the tap provides adjust. of the base impedance to better match the transmission line. Improves performance.. **$24.95**

CC-4 Extra Coil Clips pack of 4 ..... **$7.95**

BM-EXT Mast Extension 24" stainless **$24.95**

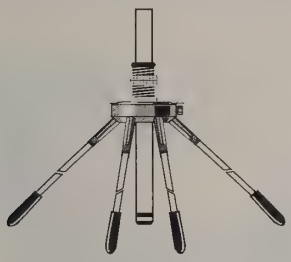
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SOLARCON ANTENNAS A99

A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

Three sections • 10 meters • 3 dBi gain • 2000W power limit • Radiation angle of <20° • DC ground mounting • 1½" mast • 52Ω coaxial cable • SO-239 connector .. • 17 ft. 8 in. length **$64.95**



GPK-1 Groundplane Kit • 30% more power gain and lower angle of radiation for greater range • Kit includes 1 collar and 4 fiberglass radials **$39.95**

NEW

Lakeview Co., Inc.

WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTO-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

Models

9106 (6M)	**9110** (10M)	**9112** (12M)
9115 (15M)	**9117** (17M)	**9120** (20M)
9130 (30 M)	**9140** (40M)	**9175** (75M)

All Hamsticks ..... each **$24.95**

IM-1 Inducto-Match **$12.95**

PAR

OMNIANGLE ANTENNAS

For 10m, 6m, 2m, 220MHZ and 440MHz (FIXED or MOBILE). The perfect complement to high-gain directional arrays, allowing all-direction local work and monitoring for DX.

Outperforms halos, loops and turnstiles! It's considerably longer than a halfwave dipole, and coupled with the unique triangle shape, yields a horizontally polarized antenna whose pattern is within 0.8dB of being a perfect circle, and exhibiting wide bandwidth.

Rated at 150W, it's built-in matchbox and current balun allow feeding with 52Ω coax & easy tuning to desired frequency with a perfect match. The design virtually eliminates detuning due to moisture.

Stack two or four OMNIANGLES for 3 to 6dB omnidirectional gain and lower angle of radiation.

OA-28 10m, 28–30MHz **$74.95**
OA-50 *(bottom)* 6m, 49.5–54MHz **$63.95**
OA-144 *(middle)* 2m, 138–150MHz **$54.95**
OA-222 222–224MHz **$54.95**
OA-432 *(top)* 420–450MHz **$54.95**

Stacking Harnesses for 2 OmniAngles (3dB Gain) - Made of Belden 8213 and silver/gold/teflon connectors, 70cm model uses N connectors.

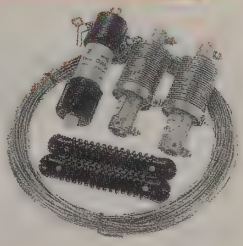
SK-50 for OA-50 ..... **$36.95**
SK-144 for OA-144 ..... **$34.95**
SK-222 for OA-222 ..... **$34.95**
SK-432 for OA-432 ..... **$54.95**

ANTENNA SUPERMARKET

The Eavesdropper Shortwave Broadcast Receiving Antenna A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes **The Zap-Trapper®** gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. Two models:

EAVES TWIN with 100' of 72Ω twin lead **$79.95**
EAVES SO239 with weatherproofed SO-239 coaxial center connector, coax not included **$79.95**

UNADILLA



W2AU/W2VS 5-Band Antenna Kit Provides Low SWR on 80 and 40M and resonant performance on 10, 15 and 20M. Includes 40M traps, W2AU 1:1 balun, end insulators, 120' of #14 stranded copper wire and instructions. 110' long, rated 2KW PEP **$85.95**

Shakespeare®

VHF MARINE ANTENNAS

4187 Ratchet Mount *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads **$36.95**

396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount **$59.95**

420 SKIPPER™ Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259 ..... **$59.95**

5101 Centennial™ End-fed Antenna with Matching Stub High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount **$49.95**

5206-C End-fed Antenna with Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount **$39.95**

5202 Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount **$69.95**

DIAMOND ANTENNA

D-130J Super Discone Antenna Ultra-wideband – covers amateur, air traffic control and other utility bands. Major component parts are stainless steel. Receive: 25-1300 MHz, transmit: 100-1300 MHz – 50-54MHz is tunable • Handles 200W 100-1300MHz; 50W at 50 MHz • Mounting brackets supplied • 66.9"h, 2.2 lbs **$89.95**

MFJ ENTERPRISES, INC.

ANTENNA TUNERS

922 VHF/UHF Dual Band Antenna Tuner Great for HTs, mobile rigs or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF from 136-175MHz and UHF from 420-460MHz. Meter reads both SWR and power in two ranges: 60W or 150W. Only 4 x 2 x 1¼"- carry it in your car, on camping trips, etc. **$79.95**

945E Mobile Tuner Covers 1.8 to 30 MHz, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted Cross-Needle SWR bridge & Power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d **$99.95**

941E Versa Tuner II Covers 1.8 to 30 MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted Cross-Needle SWR/Power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10⅝"w x 2⅞"h x 7"d **$109.95**

934 Antenna Tuner/Artificial Ground Makes a random wire an effective antenna. Combines the best features of the MFJ's 941E and 931 into one unit. A full-featured 1.8 to 30MHz, 300W antenna tuner with Cross-Needle meter and *Ground Matching* knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10⅝"w x 3½"h x 7"d **$169.95**

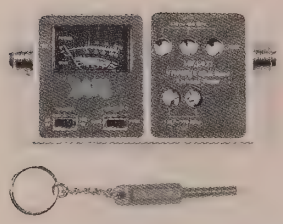
948 Has all the features of the 941E but without the dummy load. Has larger lighted peak reading Cross-Needle SWR/Power meter **$119.95**

949E Deluxe Versa Tuner II The same power, tuning and switching capability as the 941E. Has a larger, lighted peak or average reading Cross-Needle SWR/Wattmeter. *PreTune™* feature allows off-the-air tune-up into a built-in 50 ohm dummy load. 10⅝"w x 2⅞"h x 7"d. **$139.95**

969 Deluxe Versa Tuner II Covers 6 thru 160 meters and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak or average reading Cross-Needle SWR/ Wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *Pre-Tune™* feature allows off-the-air tune-up into a built-in 50 ohm 300W dummy load. Convenient 8-position antenna selector. 10½"w x 3⅞"h x 9½"d. **$189.95**

962D Versa Tuner III Covers 1.8 to 30 MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random wire or balanced line, has a built-in 4:1 balun. Lighted peak or average Cross-Needle SWR/Wattmeter with 200/2000W ranges. Six position selector for two coax lines (direct or through tuner), random and balanced lines. 10½"w x 3⅞"h x 15"d **$249.95**

986 Differential-T Tuner™ Covers 1.8-30MHz and rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, external dummy load switch, 4:1 balun. 10¾"w x 4½"h x 15"d **$299.95**

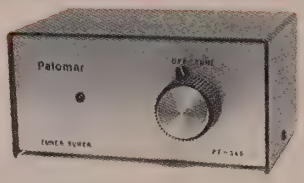


989C Versa Tuner V Covers 1.8 to 30 MHz and rated at 3KW PEP. Super duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and three-digit turns counter. Lighted peak or average reading cross needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, 3KW 4:1 balun and six-position antenna selector. 10¾"w x 4½"h x 15"d **$319.95**

AMERITRON

ATR-30 True Legal Limit™ Antenna Tuner Covers 1.8-30MHz, including all MARS and WARC bands. Designed for sustained RF output of over 1500W CW and 3000W SSB, also 160m. Uses High-Q, high-current, edge-wound arc-free roller inductor with super heavy-duty 500pf capacitor in T-match network. Matches nearly any type of antenna using either coax or balanced feedlines. Cross-needle peak-reading SWR/wattmeter with 3000/300W ranges measures peak or average forward/reflected power plus VSWR, illum. Includes three-core choke balun, six-position antenna switch and 6:1 vernier reduction drives, turns counter. Optional external 12 VDC or internal 9V battery required **$549.95**

Palomar Engineers



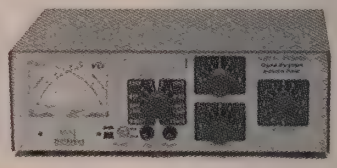
PT-340 Tuner-Tuner Eliminate QRM, overheated final tubes and devices by adjusting your station antenna tuner without transmitting. Installs permanently between rig and antenna tuner. Just turn it on, and listen to the noise output in your receiver, then adjust your station tuner controls for a dip in the noise (a null). Covers 1.7 to 30MHz. Uses 9V battery. 6"w x 5"h x 3"d **$99.95**

VECTRONICS

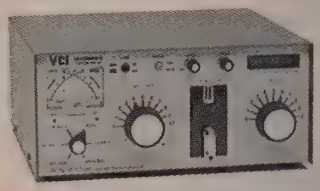
ANTENNA TUNERS

VC-300M Mobile Tuner Compact, lightweight and economical for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Also tunes open wire feeders, balanced lines, or single wires. Covers 1.8 to 30 MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. 7¼"w x 3½"h x 8¾"d, 2½ lbs **$99.95**

VC-300DLP Antenna Tuner A quality, economical tuner. Covers 1.8-30MHz at 300W continuous power capability from 3.5-30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible w/almost any antenna – coax-fed, balanced or single wire. Built-in 4:1 balun & 6-position antenna selector switch. 10¼"w x 9½"d x 3½"h, 3½ lbs **$149.95**



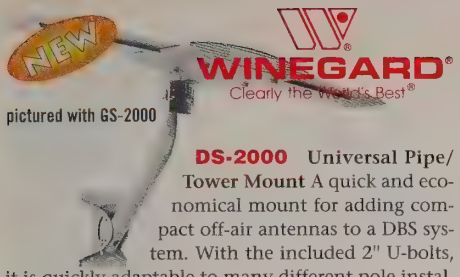
VC-300D Antenna Tuner Same functions and specifications as the VC-300DLP above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A LEVEL and DELAY control has been added to calibrate the display to the meter, and to vary the delay response **$179.95**



HFT-1500 Antenna Tuner Rated for 1500W from 1.8 to 30MHz; 1000W (2KW PEP) on 160 and 10M. Features a cranked continuous roller inductor with a turns counter and vernier tuning on the antenna and input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR; a 21-segment bargraph indicates peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and six-position antenna selector switch. 5½"h x 12½"w x 12"d, 10 lbs **$399.95**

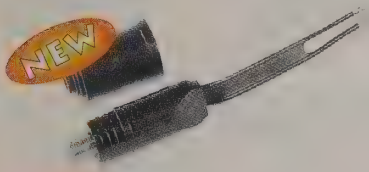
we have a
SECURE web site
at www.aesham.com

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com



pictured with GS-2000

DS-2000 **Universal Pipe/ Tower Mount** A quick and economical mount for adding compact off-air antennas to a DBS system. With the included 2" U-bolts, it is quickly adaptable to many different pole installations. Without the U-bolts, the mount can be used for attic installations. The 22" pipe has an E-coat finish for maximum weather protection **$16.95**



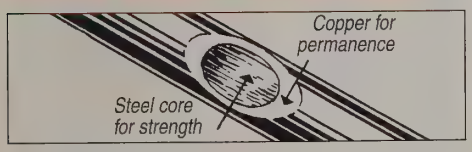
TV-2900 **Weatherproof Transformer** 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.95**

LB-2000 **Dual Feed LNBF** Dual feed LNBF for digital satellite use in the continental United States. Allow multiple receiver use **$75.95**

RG-6 75Ω Coaxial Cable with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

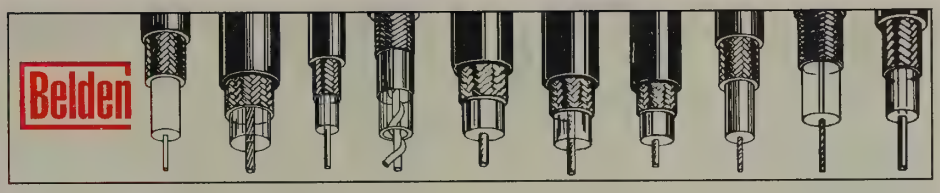
CX-0625 25 ft. length..... **$10.95**
CX-0650 50 ft. length..... **$15.95**
CX-0675 75 ft. length..... **$19.95**
CX-6100 100 ft. length..... **$24.95**

CASTLE RIDGE PRODUCTS, INC.



COPPERWELD® Antenna Wire FORGE-WELDED makes the two metals inseparable! Solid bare copper-over-steel wire – the Best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and is easy to solder. Choice of 12, 14 or 18 gauge.

AN-122 100 ft. #12 ..... **$24.95**
AN-123 150 ft. #12 ..... **$34.95**
AN-124 250 ft. #12 ..... **$49.95**
AN-126 500 ft. #12 ..... **$89.95**
AN-128 1000 ft. #12..... **$149.95**
AN-142 100 ft. #14 ..... **$19.95**
AN-143 150 ft. #14 ..... **$24.95**
AN-144 250 ft. #14 ..... **$34.95**
AN-146 500 ft. #14 ..... **$59.95**
AN-148 1000 ft. #14..... **$104.95**
AN-181 250 ft. #18 ..... **$14.95**
AN-182 500 ft. #18 ..... **$24.95**



COAXIAL CABLE

Model	RC-type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
9201	58/U	.193	#20 solid copper	Solid polyethylene	78% bare copper	PVC	53	66%	4.5 dB
8240	58/U	.193	#20 solid tinned cop.	Solid polyethylene	95% tinned copper	PVC	53.5	66%	3.8 dB
8259	58A/U	.193	#20 stranded tinned cop.	Solid polyethylene	96% tinned copper	PVC	50	66%	4.9 dB
8219	58C/U	.193	#20 stranded tinned cop.	Cellular polyethylene	96% tinned copper	PVC	50	78%	4.5 dB
8262	58/CU	.193	#20 stranded tinned cop.	Solid polyethylene	95% tinned copper	Non-contam. PVC	50	66%	4.9 dB
9258	8/X	.242	#16 stranded copper	Cellular polyethylene	95% bare copper	PVC	50	78%	3.7 dB
8237	8/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	PVC	52	66%	1.9 dB
8214	8/U	.405	#11 stranded copper	Cellular polyethylene	97% bare copper	PVC	50	78%	1.8 dB
9913	8/U	.405	#10 solid copper	Semi-solid polyethylene	100% foil + 88% braid	PVC	50	84%	1.3 dB
9251	8A/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	52	66%	2.2 dB
8267	213/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	50	66%	2.1 dB
8241	59/U	.240	#22 solid copper	Solid polyethylene	95% bare copper	PVC	73	66%	3.4 dB
8238	11/U	.405	#18 stranded tinned cop.	Solid polyethylene	97% bare copper	PVC	75	66%	2.0 dB
8213	11/U	.405	#14 solid copper	Cellular polyethylene	95% bare copper	PVC	75	78%	1.5 dB

See Belden in the Price Guide

PREASSEMBLED COAXIAL HOOK-UP CABLES

9349 3' RG-58AU low-loss foam with PL-259s **$15.95**
9350 15' RG-58AU low-loss foam with PL-259s **$17.95**
9352 50' RG-58AU low-loss foam with PL-259s **$26.95**
9354 50' RG-8U low-loss foam with PL-259s..... **$49.95**
9355 75' RG-8U low-loss foam with PL-259s..... **$69.95**
9356 100' RG-8U low-loss foam with PL-259s..... **$84.95**

ROTOR CABLE

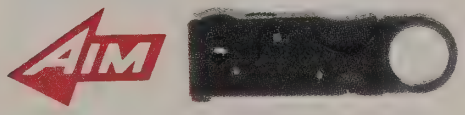
8448 Standard duty, 8 wire. Consists of 6-#22 and 2-#18 tinned copper conductors. PVC insulation and PVC jacket. For run up to 100 ft.

9405 Heavy duty, 8 wire. Consists of 6-#18 and 2-#16 tinned copper conductors. PVC insulation and PVC jacket. For runs over 100 ft.

8484 Standard duty, 4 wire. Consists of 4-#20 tinned copper conductors. PVC insulation and jacket.

ANTENNA & GROUND WIRE

8000 #14 AWG (7x22), stranded bare copper-covered steel antenna wire.
8018 #8 AWG (solid), soft annealed aluminum ground wire – multiples of 50'



For quick, clean preparation of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

24-7735P for RG-58, RG-59, RG-62..... **$21.95**
24-7736P for RG-6, RG-59, 8281..... **$21.95**
24-7739P for RG-8, RG-11, RG-213..... **$28.95**

synthetic textiles, inc.

Black Dacron® Polyester Antenna Rope Constructed of strong, double braid Dacron® Black for UV protection. Resistant to mildew & abrasion. Ties and cuts easily, sealing effectively with a hot knife.

100' 100 ft., 3/32" **$6.95**
100' 3/16 100 ft., 3/16"..... **$14.95**
100' 5/16 100 ft., 5/16"..... **$19.95**
350' 350 ft., 3/16"..... **$39.95**

MFJ ENTERPRISES, INC.

Hard Mount Coaxial Line with connectors Top quality PL-259 connector with 17' of tough RG-58A/U coaxial line. Easily snakes around a vehicle to the best operating position. Perfect for MFJ *RuffRider™* or other high gain mobile VHF/UHF antennas.

MFJ-341S for SO-239 base connector..... **$19.95**
MFJ-341M for NMO base connector..... **$19.95**

Van Gorden Engineering

LADDER LINE

450 OHM 100 18 ga. 100' insulated..... **$14.95**
450 OHM 14 100 14 ga. 100' insulated . **$29.95**
450 OHM 1,000 18 ga. 1000' insulated **$109.95**
450 OHM 14 1000 14 ga. 1000' insul . **$229.95**

WHITE NYLON ROPE

NR-100 100' roll, antenna guy rope **$4.95**
NR-1,000 1000' roll, antenna guy rope.... **$44.95**

N CONNECTOR

N CONNECTOR Male connector for Belden 9913 and 8214 coax **$4.95**

PREASSEMBLED COAXIAL HOOK-UPS

8X-3ST 3' RG-8X w/silver-teflon PL-259s.... **$8.95**
8X-6ST 6' RG-8X w/silver-teflon PL-259s . **$10.95**
8X-12ST 12' RG-8X, silver-teflon PL-259s.**$11.95**
8X-25ST 25' RG-8X, silver-teflon PL-259s.**$15.95**
8X-50ST 50' RG-8X, silver-teflon PL-259s.**$24.95**
8X-75ST 75' RG-8X, silver-teflon PL-259s.**$31.95**
8X-100ST 100' RG-8X, silver-tef. PL-259s.**$37.95**
213-3ST 3' RG-213, silver-teflon PL-259s. **$11.95**
213-6ST 6' RG-213, silver-teflon PL-259s. **$14.95**
213-12ST 12' RG-213, silver-tef. PL-259s. **$18.95**
213-25ST 25' RG-213, silver-tef. PL-259s. **$25.95**
213-50ST 50' RG-213, silver-tef. PL-259s. **$38.95**
213-75ST 75' RG-213, silver-tef. PL-259s. **$54.95**
213-100ST 100' RG-213, sil.-tef. PL-259.. **$72.95**

BALUNS & INSULATORS

Hi-Q 1:1 or **Hi-Q 4:1** **Baluns** 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas • For dipoles, yagis, inverted vees and doublets • Weatherproof • Covers 3-40MHz, 1.5kW rating • Replaces center insulator • Reduces feedline radiation for more power into antenna, and less TVI and BCI problems • Built-in DC ground reduces noise and protects against lightning • SO-239 connector, center support eye hook.....each **$14.95**

ANTENNA CENTE Hi-Q **Antenna Center Insulator** • Insulator only, no balun • Replaces egg-type center insulator • Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook..... **$6.95**

ANTENNA END IN End insulators.... pair **$4.95**
DOG BONE Antenna insulators..... each **95¢**

We accept I.M.P.A.C.® Government Credit Cards

CABLE X-PERTS, INC.

9913FX Flexible Low Loss 50 Ω Coaxial Cable

- Designed for directional antenna systems.
- Special Semi-Solid Polyethylene Dielectric.
- Velocity of Propagation 84%.
- Double Shield 100% bonded Foil + 95% TC Braid
- Non-Contaminating-Direct Burial Jacket.
- 1.6dB/100ft @ 150 MHz (2 meters)
- 2.8dB/100ft @ 450MHz (70cm)
- Uses PL259 connectors, or "N" (special size)
- Long Life Performance and Reliability.
- Greatly improves performance on 2 meters & 70cm over conventional coaxial cables.

9913FX per foot..... **87¢**
9913FX 500 500 foot roll **$299.95**

UNADILLA

W2VS ANTENNA TRAPS

Add these traps to your dipole for multiband operation on two to six bands. *For example:* add the 40 meter pair (KW-40) and get 40 and 80 meter operation. For 10, 15, 20, 40, 80 and 160 meters, add all five pairs – 33 combinations! Selecting traps is easy. Just list the bands you want to cover, listing the highest frequency band first. You will need a pair of traps for each band except the one with the lowest frequency. Cost/pair.

KW-80CW 80m CW **$48.95**
KW-80F 80m phone **$48.95**
KW-40 40 meters..... **$42.95**
KW-30 30 meters **$42.95**
KW-20 20 meters..... **$41.95**
KW-17 17 meters..... **$41.95**
KW-15 15 meters..... **$41.95**
KW-12 12 meters..... **$41.95**
KW-10 10 meters..... **$41.95**

W2AU FERRITE BALUNS

W2AU 1:1 or **W2AU 4:1** or **W2AU Beam** **Balun** Smooth transition from unbalanced coaxial transmission line to balanced antennas such as dipoles, quads & yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain & reduced TVI/BCI. Replaces center insulator, DC grounded for lighting protection & has a convenient center eye hook for support. Usable from 1.8-40MHz, 2KW PEP ..... ea. **$24.95**

W2DU NON-TRANSFORMER CHOKE BALUNS

W2DU HF for 1.8-30MHz, **W2DU VHF** for 30-250MHz, **W2DU BEAM** for 40-10m. High efficiency, transformerless 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those freq.... ea. **$26.95**

Used & Demo Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

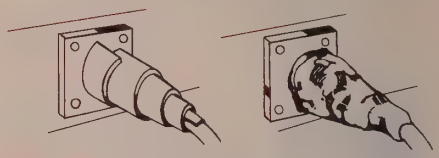
CENTAUR ELECTRONICS

High Performance Baluns • State-of-the Art • 0.5 to 50MHz performance with advanced toroidal transformer • 3KW SSB rated • Extended performance in hostile environments • Stainless steel hardware • Heavy-duty body materials • Military grade internal components • 3" x 7"

B11W10-50 1:1, dipole..... **$49.95**
B11Y10-50 1:1, yagi..... **$49.95**
B41Y10-50 4:1, yagi..... **$64.95**
B41LW10-50 4:1, ladderline to coax **$64.95**

ANTENNA, COAX & CONNECTOR PROTECTION PRODUCTS

COAX-SEAL®



UNV 104 **Hand Moldable Plastic for Antenna Component Protection** The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then re-seal just by re-forming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"..... **$2.95**

PENETROX™

PENETROX® A Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze..... (4oz bottle) **$12.95**

Cross Devices

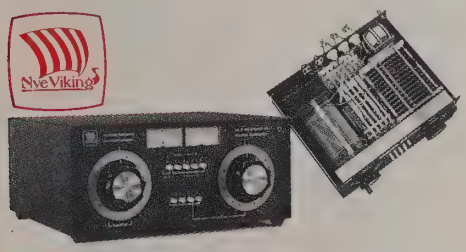
STUF **Dielectric Water-proof Connector Filler** Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material..... (tube) **$4.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

ICOM

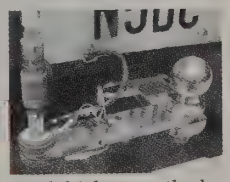
AH-2B Antenna Element Provides 7–50MHz mobile operation when used with the AH-4 antenna tuner. Includes a sturdy bumper mount, 8.2 foot antenna and necessary hardware..... **$299.95**

AH-4 Automatic Antenna Tuner *Fully automatic* – covers all amateur bands from 3.5MHz through 54MHz with a 23 ft. or longer wire antenna, or 7–54 MHz with optional AH-2B antenna element. Compact yet durable, it measures only 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations – outdoors, on a back porch or in your vehicle. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with ICOM HF transceivers. Just push the transceiver [TUNER] switch and the AH-4 automatically adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memory channels store settings to provide 1-second re-tuning. Supplied with mounting kit, 16 ft. control and coaxial cables, PL-259s. Requires 13.8 VDC..... **$319.95**



MB-V-A Heavy-Duty Antenna Tuner 1.8 to 30 MHz continuous tuning. Silver plated variable inductor with 25:1 vernier dial. 7kV variable capacitor and 15kV switch selected fixed output capacitors. Tunes most antennas 1/4-wave length or longer from 40–2000Ω (some may not tune at 1.8 MHz). Automatic SWR metering without calibration. Separate automatically switched 300W/3KW RMS wattmeter. Quality 2½" backlit meters continuously display SWR and power. Silver plated 5-position pushbutton antenna switch selects four antennas: two coaxial, single wire and balanced line, and bypass. Trifilar-wound 3KW toroid balun provides balanced output from 200 to 1000Ω, and unbalanced output down to 20Ω. Requires 9V battery for meter and external 12VDC for meter lights. 14¾"w x 6¾"h x 12¾"d, 18 lbs **$879.95**

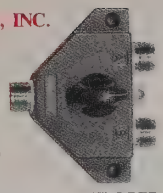
DC SALES



TENNA HITCH A heat treated, high strength aluminum bracket with insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied..... **$35.95**

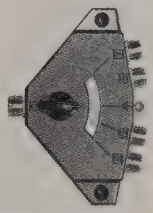
MFJ MFJ ENTERPRISES, INC.

COAXIAL SWITCHES



1702C Antenna Switch Two positions plus center ground, 50Ω. Rated to 500MHz with <0.2dB loss, 2.5KW PEP or 1 KW CW. >60dB isolation @ 300MHz or >50 dB @ 450MHz. Unused terminal automatically grounds for lightning protection..... **$24.95**

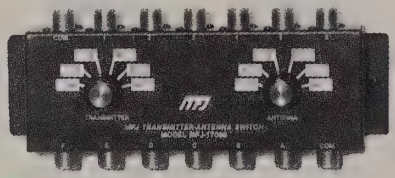
1702CN Lowest loss on UHF. Uses Type N connectors which are good up to 1.1 GHz **$34.95**



1704 Antenna Switch Four positions, plus center ground. 50Ω, rated to 500MHz with <0.2dB loss. Handles 2.5KW PEP, 1KW CW, >50dB isolation @ 500MHz. Includes a replaceable lightning protection device **$64.95**

1704N with Type N's..... **$74.95**

1701 Antenna Switch Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1½"d **$49.95**



1700B Antenna and Transceiver Switch Select up to six antennas and six rigs in any combination – tuner, SWR meter, linear, etc. Can be left in line to operate with any combination 50 or 75Ω. Handles 2KW PEP or 1KW CW from 1.8 to 30MHz. Unused positions are automatically grounded for lightning protection. 10"w x 3"h x 1½"d..... **$79.95**

270 Lightning Surge Protector Safeguard your ham gear from damage due to dangerous static charges and lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz **$29.95**

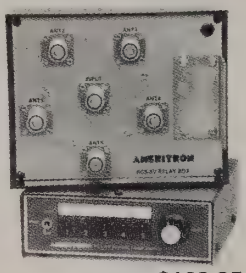
ANTENNA MOUNT

310 HT Antenna Window Mount Clip Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. It's quick and easy to install and remove. Comes with 10 ft. feet of flexible mini-coaxial cable..... **$14.95**

AMERITRON

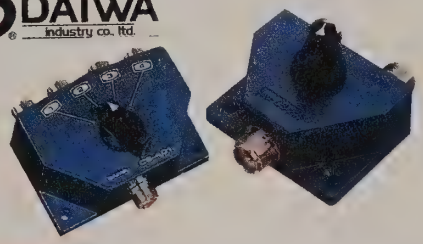
REMOTE CONTROLLED SWITCHES

RCS-4 Select up to 4 different HF antennas while using just one coaxial feed line, and no additional control cable is required. The weatherproof switch box locates out on the tower, mast or other remote location. The control box locates at your operating position and switches antennas with a control voltage routed directly through the coaxial cable. 1.8–30MHz, 2KW **$129.95**



RCS-8V Independently or simultaneously select up to 5 different antennas using just one coaxial feedline and 8-wire control cable. Internal wiring allows user to ground or float unused terminals as required. 5KW below 30MHz, and 1KW up to 150MHz..... **$139.95**

DAIWA industry co. ltd.



CS-201 2-Position Coaxial Switch *(right)* A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors..... **$26.95**

CS-401 4-Position Coaxial Switch *(left)* Same features as CS-201, but rated to 800MHz **$149.95**

WA1FFL

Ladder-Loc® Center Insulator & Support Provides a convenient means of attaching 450Ω ladderline to various dipole antennas. This sturdy support minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life **$12.95**

Used & Demo

Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

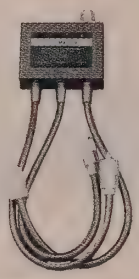
For duplexer and triplexer prices, see the Price Guide under each respective manufacturer.

DUPLEXERS

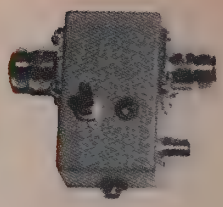
Type	Leads	2m/440	2m/220	440/1200	HF/6 to 440	HF to 6/2m
SO239 PL259/PL259	No	Comet CF4160K Diamond MX72D MFJ 916	Diamond MX214D			
SO239 PL259/Nmale	No	Comet CF4160I				
SO239 SO239/SO239	No	Comet CF4160J Valor D270				
SO239 PL259/PL259	Yes	Comet CF416A Comet CF530 Diamond MX72H	Comet CF142 Diamond MX214		Comet CF360A	Comet CF706 Diamond MX62M
SO239 PL259/Nmale	Yes	Diamond MX72N Yaesu AD3				
Nfemale PL259/Nmale	No	Comet CF416C Comet CF416W				
Nfemale Nmale/Nmale	Yes			Comet CF4130A Diamond MX37		
Nfemale Nmale/Nmale	Yes			Comet CF413A		
PL259 SO239/SO239	Yes				Comet CF360B	

TRIPLEXERS

Type	Leads	HF/62/440/1200	6/2/440	2/220/440
Nfemale PL259/Nmale/Nmale	No	Comet CFX4310B		
Nfemale PL259/PL259/Nmale	No	Comet CFX4310C Diamond MX3000D		
SO239 PL259/PL259/PL259	Yes	Diamond MX2000	Comet CFX514	Comet CFX324A Diamond MX324
SO239 PL259/PL259/PL259	No		Comet CFX5140 Diamond MX2000D	
Nfemale PL259/PL259/Nmale	Yes	Comet CFX431B Diamond MX3000		
Nfemale PL259/Nmale/Nmale	Yes	Diamond MX3000N		
SO239 SO239/SO239/SO239	No		Comet CFX5140	



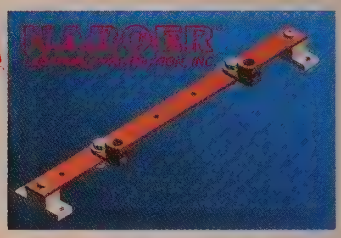
MIRAGE



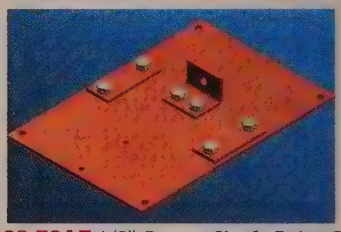
GaAsFET Preamps for 10, 6, 2, 220 and 440 High gain, ultra low noise GaAs FET preamps improve weak reception by providing from 15–25dB of receive gain with a N.F of <0.6dB.

In-line design with auto transmit and receive switching for up to 160W throughput. Choose in-shack model (**KP-1**), or mast mount model (**KP-2**) providing added benefit of reducing feedline loss.

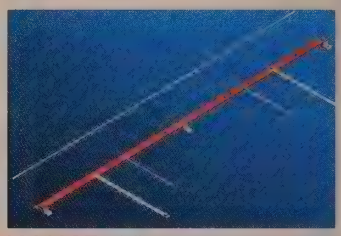
KP-1 models **$129.95**
KP-2 models **$179.95**



GBIS18114AE 1/8" **Copper Entrance Ground Bar Kit** Installs at shack entrance, making a short connection to the ground rod system. Holds up to 5 PolyPhaser IS50-type lightning impulse suppressors. Insulated stand-off brackets allow attaching and insulating of ground bar from mounting surface. Two terminal lugs and hardware included to accomodate grounding conductors, size range 1/0 stranded to #6 solid **$27.95**

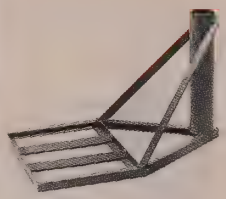


GP1868.78AE 1/8" **Copper Single Point Ground Panel Kit** Provides single-point grounding for two transceiver lines and rotor control cable. Installs at tower base or on outside wall. Sized to fit inside a NEMA-4X style box for weather proofing. Tapped holes and hardware provided for mounting a PolyPhaser IC-RCT rotor control protector and up to two IS-50 series coaxial protectors. Sandwich plates and hardware included **$54.95**



GBIS18148AE 1/8" **Copper Station Ground Bar Kit** Installs at back of operating desk. Allows grounding of individual components to a common point preventing multiple ground paths and daisy-chains. Accepts a heavy ground conductor to be routed to station ground or entrance ground bar. Includes 2 heavy 12" straps for transceivers or amps & 2 light duty 1/4" straps for accessories, plus extra 1/4" strap & lugs for added assemblies..... **$64.95**

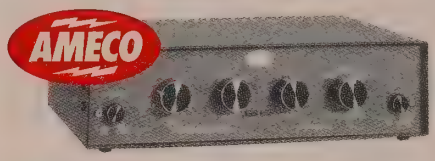
NEW WAVE Antenna



PORTAPLE COLLAPSIBLE MASTS

Portable or Temporary antenna installations! 7-section, telescoping masts manufactured from 6061-T6 polished aircraft alum. with a taper from 2"-1¼". Light-weight, easily raised by one person at ground level in seconds. Each section joint has a 4" overlap and snaps into place. Conveniently rotates at any section along its length, or securely locks into place. Options: Snap-on antenna & park-on steel mounts.

ADVENTURER 47" to 12 ft, 4½ lbs **$109.95**
TRAVELER 59" to 19 ft, 6½ lbs **$124.95**
ROVER 71" to 26 ft, 8½ lbs..... **$149.95**
EXPEDITIONER 83" to 33 ft, 10½ lbs... **$174.95**
EXPLORER 95" to 40 ft, 12½ lbs..... **$199.95**
BIG FOOT Park-on steel mount. 8½ lbs . **$119.95**
SNAP ON MOUNT Antenna Mount Attach antennas to portaples without tools. Adds 12" **$19.95**



PT-3 Preamplifier Covers 160 to 6m, useable with either a receiver or transceiver. Tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second rcvr or ant. capability. 12V DC. or use P-12T AC adapter ($9.95) 2½"h x 8¾"w x 6½"d **$124.95**

TPA Tunable Preamplifier/Active Antenna Use as a preamplifier to improve the gain of a receiver, or as an indoor active antenna. Covers 0.22 to 30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30" collapsible whip gives great results. Uses 9V battery or PT-9T AC adapter ($9.95). 1½"h x 8"w x 6½"d **$76.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

PolyPhaser Corporation's coaxial impulse suppressors are a unique line of patented products. Hermetically-sealed voltage sensitive gas tubes are used with additional components to assure that surge voltages and currents formed differentially on the coax are not conducted to the equipment input. There is no dc continuity from center pin to center pin on our dc blocked protectors.

Other gas tube protectors have dc continuity through their center pins and share the energy with the equipment before the gas tube turns on. *Quarter wave stub protectors* are also dc coupled devices. There is dc continutiy between their center pins and the equipment input.

A PolyPhaser dc blocked protector only lets through our rated specification (low milli-, or microjoules). Peak voltage let-through is also significantly less than dc continuity protectors. PolyPhaser's measured let-through energy and voltage is the industry's lowest.

- Multi-strike capability with low-strike throughput energy
- Aluminum enclosure
- VSWR: ≤1.1 over its frequency range

FLANGE MOUNT

IS-50UX-C0 Frequency Range: 1.5MHz to 400MHz; Max. Power: HF 2kW, VHF 375W, UHF 125W

IS-50UX-C1 Frequency Range: 50MHz to 700MHz; Max. Power: VHF 375W, UHF 125W

IS-50NX-C2 Frequency Range: 125MHz to 1000MHz; Max. Power: VHF 375W, UHF (low) 125W, 800MHz to 1GHz 50W. Type N connectors

BULKHEAD MOUNT

IS-B50LU-C0 Frequency Range: 1.5MHz to 400MHz; Max. Power HF 2kW, VHF 375W, UHF 125W

IS-B50LU-C1 Frequency Range: 50MHz to 700MHz; Max. Power VHF 375W, UHF 125W

IS-B50LN-C2 Frequency Range: 125MHz to 1000MHz; Max. Power VHF 375W, UHF (low) 125W, 800MHz to 1GHz 50W. Type N connectors

ROTOR CONTROL PROTECTOR

IS-RCT Provides protection for rotor controllers, motors, control box and other nearby equipment. EMP rated faster than other gas tubes with mounting stud. 7.5"h x 3.25"w x 2.5"d.

IN-LINE PHONE LINE PROTECTOR

IS-SPTL Multi-stage protection, with large bandwidth and fast response time. EMP rated. For telephone trunk lines — handles standard ring voltages to 105Vrms. Handles surges up to 36kA.

POWER LINE EXTENSION PROTECTOR

In-line, multi-stage EMP rated protectors provide multi-strike power line protection, filtering, and proper grounding when equipment use requires an extension cord. Two outlets, master on/off switch, circuit breaker for added protection. All aluminum-grounded enclosure. 4.25" wide.

IS-PLDO-120-15A 15' cord, 120V @ 15A

IS-PLDO-120-20A 6' cord, 120V @ 20A

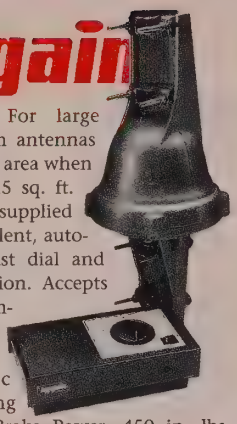
GROUNDING PANEL

CU-SPGP A .062" thick copper plate mounted on a painted 1/2" plywood backing. Mounting protectors & a single ground point established for station equipment. Comes with concrete anchors, all mounting screws, 10' of 1.5" copper grounding strap, 2 brass sandwich plates, and joint compound. 18"w x 12"h; 16"d center mount.

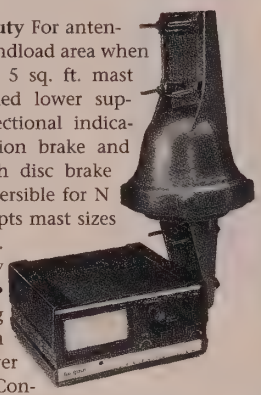
LOW INDUCTANCE COPPER STRAP

Copper strap has an advantage over wire when used for grounds, as it has lower inductance, and cannot be fused open by lightning. For example: 1.25" strap has a lower inductance than #2.0 stranded wire. It's easy to cut, solder, etc. Usable above or in-ground applications. 26 AWG thickness (0.0159"). Available in 1.5, 3 & 6 inch widths, and 25, 50, 75 or 100 foot rolls.

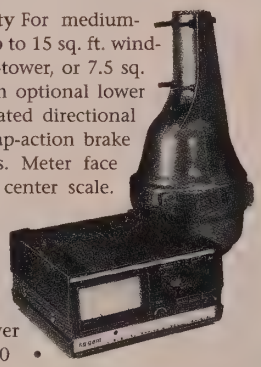
NEW hy-gain



AR-40 Lightweight For large TV/FM and smaller Ham antennas up to 3.0 sq. ft. windload area when mounted in-tower, or 1.5 sq. ft. mast mounted using the supplied lower support bracket. Silent, automatic control box – just dial and touch for desired direction. Accepts mast sizes up to 2⅛" diameter. Includes light duty mast support. • Dual 12 ball bearing race, disc brake system • Turning power: 350 in. lbs. • Brake Power: 450 in. lbs. • Control cable: 5-wire – Belden 8448/9405 • 17⅜"h x 8" dia., 14 lbs **$269.95**

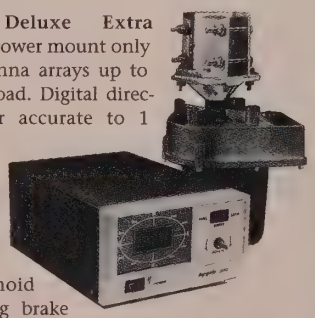


CD-45-II Medium Duty For antennas up to 8.5 sq. ft. windload area when mounted in-tower, or 5 sq. ft. mast mounted with supplied lower support. Illuminated directional indicator, seperate snap-action brake and rotation switches with disc brake release. Meter face reversible for N or S center scale. Accepts mast sizes up to 2⅛" diameter. Includes light duty lower mast support. • Dual 48 ball bearing race, disc brake system • Turning/brake power (in./lbs.): 600/800 • Control cable: 8-wire – Belden 8448/9405 • 17⅜"h x 8" dia., 22 lbs..... **$369.95**



HAM-IV Heavy Duty For medium-sized antennas with up to 15 sq. ft. windload area mounted in-tower, or 7.5 sq. ft. mast mounted with optional lower mast bracket. Illuminated directional indicator, separate snap-action brake and rotation switches. Meter face reversible for N or S center scale. Accepts sizes up to 2⅛" diameter. • 98 ball bearings, electric locking steel wedge brake system, RF protected • Turning/brake power (in. lbs.): 800/5000 • Control cable: 8-wire – Belden 8448/9405 • 13½"h x 8" dia., 24 lbs **$529.95**

HAM-V Heavy Duty Same specifications as the HAM-IV but powder coated and includes the DCU-1 digital control box..... **$899.95**

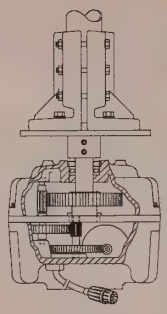


HDR-300A Deluxe Extra Heavy-Duty In tower mount only – for large antenna arrays up to 25 sq. ft. windload. Digital directional indicator accurate to 1 degree. Separate brake and rotation controls. Accepts masts up to 3" diameter. • 138 ball bearings, solenoid operated locking brake system, RF protected • Turning/brake power (in/lbs.): 5000/7500 • Control cable: Belden 8-wire control cable • 7"x 9" x 10"h, 55 lbs **$1229.95**

T-2X Tailtwister Extra Heavy Duty For large antennas up to 20 sq. ft. windload when mounted in-tower, or 10 sq. ft. mast mounted with optional support bracket. Illuminated directional indicator, separate snap action brake & rotation control switches. Meter face reverses for N or S center scale. Accepts masts up to 2⅛" dia. Triple 138 ball bearing race, electric locking steel wedge brake • Brake/turning power (in/lbs.): 9000/1000 • Control cable: Belden 8-wire • 14⅛"h x 9⅜"dia., 28 lbs..... **$619.95**

T-2XD Tailtwister Extra Heavy Duty Same as T2X, but with DCU-1 digital contol box. **$979.95**

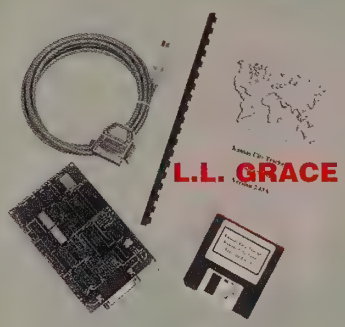
DCU-1 Digital Rotor Control A compatible control for T-2X and Ham-IV. Automatic operation of brake and rotor. with Automatic 8-second brake delay. Six presets for favorite beam headings, 1 degree heading accuracy and 360 degree choice for rotational midpoint. RS-232 computer port, compatible with many logging and contest programs..... **$619.95**



M²

OR-2800PDC Heavy-duty Rotator Powerful and reliable, rotates multiple HF antennas or large VHF or UHF arrays with ease. The control box provides manual features plus heading preset, 10 programmable presets, programmable ramped start/stop, 1/2-degree target accuracy. Includes RS-232 port for computer control • Precision worm-gear drive, not reversible by mast torque • Non-slip, ductile iron mast clamps • Large drive plate for masts up to 3" • Heat-treated steel gear train, hardened driveshaft • Prop-pitch style torque plate • Fits inside most popular towers and mates to standard towers and rotator plates • Motor-mounted digital pulse switch for accurate, closed loop control and heading display • 35 sq. ft. wind area • 1800 lbs. vertical load • 1¾-3⅛ O.D. mast size • 55-270 second rotation speed • 0.1°/0.5° travel resolution • 110/220V AC, 50/60Hz input • 28-42V DC motor • 153.4"h total, 9¾"h rotor • 42 lbs **$1429.95**

we have a SECURE web site at www.aesham.com



SATELLITE TRACKING WITH YOUR PC AND THE KANSAS CITY TRACKER AND TUNER

The **Kansas City Tracker** is a hardware and software package that connects directly to Yaesu G5400B/G5500/G5600B or Kenpro 5400A/5600A (and others) rotor controllers and an IBM XT AT, or clone. It controls your antenna array, letting your PC track any satellite or orbital body. The hardware consists of a half-size interface card that plugs into your PC. Includes interface cable, connector and software.

The **Kansas City Tuner Option** provides automatic doppler-shift compensation for Digital satellite work. It's compatible with most rigs including Yaesu, Kenwood, and ICOM. It controls your radio thru the radio's serial computer port or through the radio's up/down mic-click interface. The Kansas City Tuner Option is perfect for low-orbit digital satellites like the NOAA and Microstat satellites.

The KCT and Tuner include custom serial interfaces, and do not use your computer's valuable COMM ports. The software runs in your PC's "spare time," letting you run other programs at the same time.

The Kansas City Tracker and Tuner programs are "Terminate-and-Stay-Resident" programs that attach themselves to DOS and disappear. You can run other DOS programs while your antenna tracks its target and your radios are tuned under computer control. This unique feature is especially useful for digital satellite work; a communications program like PROCOMM can be run while the PC aims your antennas and tunes your radios in its spare time. Status pop-up windows allow the user to review and change current and upcoming radio and antenna parameters. The KCT is compatible with DOS 2.00 or higher.

Satellite and EME Work: The Kansas City Tracker and Kansas City Tuner are fully compatible with N4HY's QUIKTRAK and with Silicon Solution's GRAFTRAK. These programs can be used to load the Kansas City Tracker's tables with more than 50 satellite passes.

DX Contests, and Nets: Working DX or contests and need three hands? Use the Kansas City Tracker pop-up to work your antenna rotor for you. The Kansas City Tracker is compatible with all DX logging programs. A special callsign aiming program is included for working nets.

Packet BBS: The Kansas City Tracker comes complete with special control programs that allow the packet BBS user or control-op to perform automated antenna aiming over an hour, a day, or a week. Your BBS or packet station can be programmed to automatically solicit mail from remote packet sites.

Vision-impaired Hams: The KCT has a special morse-code sender section that will announce the rotor position and status automatically or on request. The speed and spacing of the code are adjustable.

GRA KCT KC Tracker package includes cable for Yaesu/Kenpro 5400/5500/5600 and rotor interface option (connect any rotor) **$229.95**

GRA KCT/T KC Tracker package + KC Tuner **$319.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

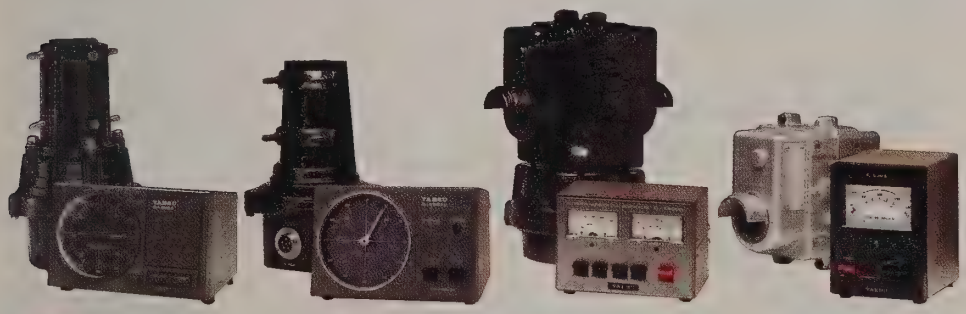
YAESU

YAESU Rotators – precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves. Recommended Belden cables listed below.

G-2800SDX *(left)* The top-of-the line rotator for extra heavy-duty applications. Total rotation range 450°, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1⅞-2½" mast size • 48-150 second 360° rotation • Optional GS-23 computer interface • Requires 6-wire cable • 8"dia. x 13⅜"h • 13.2 lbs.... **$1139.95**

G-1000DXA *(middle)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1½-½" mast size • 35-74 sec. 360° rotation • Optional GS-23 interface • Requires 5-wire cable • 7½"dia. x 12½"h • 7.7 lbs.... **$519.95**

G-800SDX *(right)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 440 lbs. • ±2° backlash • 1½-2½" mast size • 35-74sec. 360° rotation • Optional GS-23 interface • Requires 5-wire cable • 7½"dia. x 12½"h • 7.5 lbs... **$429.95**



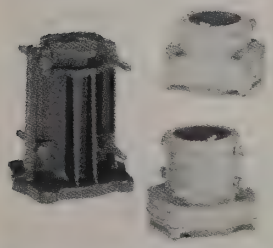
G-800S *(left)* High performance for medium-duty applications. Total rotational range 450°, No presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 440 lbs. • ±2° backlash • 1½-2½" mast size • 44 second 360° rotation • Optional GS-23 computer interface • Quick-disconnect plug • Requires 5-wire cable • 7½"dia. x 12½"h • 7.5 lbs..... **$339.95**

G-450A *(middle left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1½-2½" mast size • 53 second 360° rotation • Requires 6-wire cable • 7½"dia. x 12½"h • 7 lbs **$259.95**

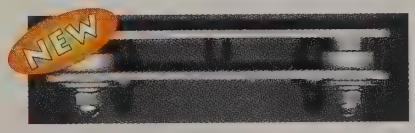
G-550 *(right)* Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1½-2½" mast size • 67 second 180° elevation • 1¾-1⅞" boom diameter • Requires 6-wire cable • 10½"dia. x 7½"h • 7.3 lbs..... **$299.95**

G-5500 *(middle right)* Azimuth-Elevation rotator combination for satellite earth station and other space communication antennas • 11 sq. ft. wind load • K-factor of 578 ft. lbs. • 145 ft lbs. of stationary torque • Rotation torque: 44 ft. lbs. • Max. vertical load: 440 lbs. • ±4% backlash • 1½-2½" mast size • 58 sec. 360° rotation • 67 sec. 180° elevation • Optional GS-232 interface • 1¾-1⅞" boom dia. • Requires 2 x 6-wire cable • 12½"dia. x 7½"h, 20 lbs **$629.95**

K-Factor: Multiply turning radius times weight; add K-Factors for each antenna in multi-antenna installations. The results of the calculation should not exceed the K-Factor rating of the rotator.

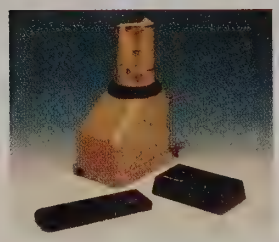


YAESU
ROTATOR ACCESSORIES



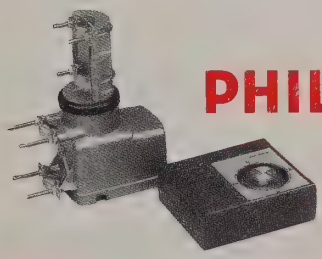
GC-038 Mast Clamp for 450/800/1000/5500..... **$31.95**
GC-048 Mast Clamp for 2800SDX..... **$47.95**
GS-050 50mm Thrust Bearing for 1¼" to 2" mast..... **$31.95**
GS-065 65mm Thrust Bearing for 1½" to 2½" mast..... **$47.95**
GA-2500 Tower absorber joint for 450A/XL/800S/SDX **$79.95**
GA-3000 Tower absorber joint for 1000/2800SDX **$119.95**

Channel Master®



9521 Drive Unit: Handles small VHF, UHF and TV antennas • One-piece cast aluminum housing • Heavy-duty rotator motor, three-wire control • Wind-tested brake pad • Durable powder-coated finish • Precision-cut gear system • Built-in steel thrust bearings **Control Unit:** Compatible with most universal remote controls • Infrared remote • 69 channel programmable memory • Auto synchronization for pinpoint accuracy • Direct access via channel number or compass heading **$99.95**

9515 Drive Unit: Looks similar to 9521, but has stronger gearing and housing to handle UHF or VHF arrays and large TV antennas with a windload of less than 5 sq. ft. **Control Unit:** Manual control, no remote **$129.95**



PHILIPS

U-105 Antenna Rotator featuring a one-piece cast aluminum housing, large bearing surfaces, reinforced mast support and a ball bearing for the vertical load. Precision-cut, hardened steel drive train and high torque — well equipped to handle small to medium VHF or UHF amateur and the largest TV and FM arrays. Control unit is smooth and quiet, synchronized with the drive by synchronous motors • 360° +5°-0, 70 second rotation • 8 ft./lbs. rotation torque • Maximum vertical load: 100 lbs. • 1⅛ to 2" diameter mast size • 4-wire control cable - Belden 8484 recommeded • 7"w x 5⅞"d x 2⅜"h • 10 lbs (rotator and control)..... **$69.95**

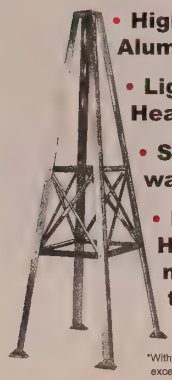
TB-105 Support Bearing for extra-sturdy installation when using the U-105 rotator. Relieves wear and tear on the drive unit imposed by wind loads. All ball bearing design, weather-tight seal. Installs on support mast, above the U-105 ..... **$18.95**

Belden
ROTOR CABLE

AES recommends you use Standard Duty cable for runs up to 100 feet. For longer runs, to deliver the proper voltage to the rotator, use heavy duty. See Price Guide for a complete list and pricing.

8448 Standard duty, 8 wire For run up to 100 ft.
9405 Heavy duty, 8 wire. For runs over 100 ft.
8484 Standard duty, 4 wire.

ROOF-TOP TOWERS



- **High Quality Anodized Aluminum/Satin Finish**
- **Lightweight & Extra Heavy Duty**
- **Stainless Steel Hardware/ Will Not Rust!**
- **Ideal for support of Ham Antennas, Scanners, Weather Monitors, AMSAT, etc.!**
- **Free Shipping***

*Within the 48 continuous states on products over $25, except M-1040 and MA-1040 masts.

GLEN MARTIN ENGINEERING

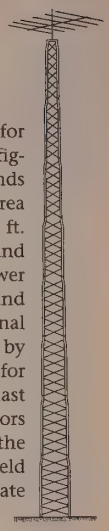
- Contact us for a complete GME catalog - *FREE!*
- See price list for a list of products and prices.

MODEL	Height	D[1] Inches	Base Width	Wind Load[2]	Max Ant. Load	Ship Weight
RT-424	4.5'	34.75	24"	6sq.ft.	100	18 lbs.
RT-832	8.0'	43.75	32"	8sq.ft.	120	30 lbs.
RT-936	9.0'	43.75	36"	18sq.ft.	130	54 lbs.
RT-1832	17.5'	37.62	32"	12sq.ft.	110	62 lbs.
TB-25	Preminum thrust bearing (Max Mast Dia 2.6")					3 lbs.
MC-10	Mast Clamps, 2 required (Mast 1.3"-2.1" Dia)					2 lbs.
LR-8400	Lighting Rod Kit (order ground cable separately)					12 lbs.

1 Distance from top mounting surface to rotor plate. 2 Wind load rating at 87 mph

ROHN®

HEAVY-DUTY HDX-SERIES



All steel with X-brace construction for strength that allows a free-standing configuration without guy wires at 70 mph winds with antennas up to 10 sq. ft. wind area and boom lengths not exceeding 10 ft. Galvanized steel provides an attractive and maintenance-free finish. The entire tower can be assembled on the ground and hinged up into position with an optional hinged base, or built vertically, section by section. Supplied with BXB base stubs for concrete mounting, rotator plate, mast clamp and hardware. All makes of rotators can be installed on the plate inside of the top section. Tubing furnished can be held in place with mast clamp on the top plate to act as a thrust sleeve for a 1¼" mast.

Factory Drop Shipped – Truck Collect

Model	Height	Sections	Windload @70mph	Weight	Price
HBX-40/ BXB-6	40'	5	10sq.ft.	276 lbs.	$490.95
HBX-48/ BXB-7	48'	6	10sq.ft.	353 lbs.	$653.95
HBX-56/ BXB-8	56'	7	10sq.ft.	444 lbs.	$820.95
Heavier Capacity Duty HDBX - Series					
HDBX-40/ BXB-7	40'	5	18sq.ft.	330 lbs.	*$499.95
HDBX-48/ BXB-8	48'	6	18sq.ft.	422 lbs.	$816.95

* SALE - limited quantity, Milwaukee ship or Pick-up

Kevlar Cable

Complete Line of Guying Accessories

Specifically KEVLAR is...

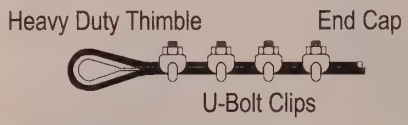
- Stronger than steel, at 1/5th the weight.
- 3X stronger than Nylon and Polyester.
- Twice the stiffness of glass fiber.

Kevlar is an Aramid fiber that offers a **light-weight replacement for steel guy wires**. KEVLAR guys are non-corrosive and non-conductive, with low elongation, and have the highest combined specific strength and modulus.

Kevlar Cable Ordering Information		
HP-3000	3000 lbs. break Kevlar Cable	Needed for each end of cable: (1) end cap, (1) thimble, (4) u-bolt clips.
HP-4500	4500 lbs. break Kevlar Cable	
HP-7500	7500 lbs. break Kevlar Cable	
See Price List for thimbles, u-bolts & end caps.		

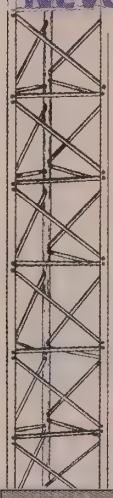
Benefits of Using Kevlar Cable

- Completely **isolates** a tower-guy system from the antenna field.
- Improves **signal coverage** by eliminating distortion caused by re-radiated signals.
- Provides quick, easy, **maintenance-free** tower installations.
- Assures a neater tower appearance with no more corroded steel guys, no troublesome ceramic insulators and no more **white-noise arcing**.



Martin Tower Packages

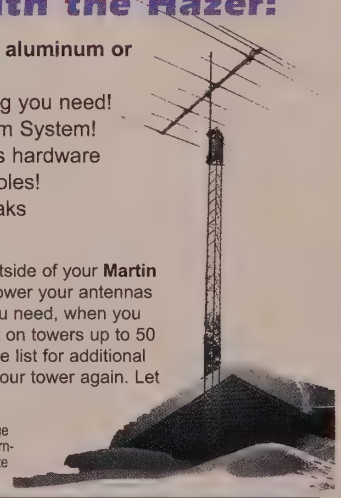
"Never Climb a Tower Again with the Hazer!"



- **Pre-Assembled sections made of strong anodized aluminum or galvanized steel**
- **Convenient / Affordable tower packages-** everything you need!
- **No Climbing-** includes the world famous **Hazer**™ Tram System!
- **All-bolted construction-** no welds to break, stainless hardware
- **Safe, Easy "Walk-Up" Tower Installation-** No gin poles!
- **Lifetime investment-** no rust, chipping or freeze breaks
- **Quality Engineering & Competitive Pricing!**

The Hazer is a unique tram system that rides up & down the outside of your **Martin** or **Rohn** tower much like a flag goes up a flagpole. Raise and lower your antennas by simply turning a winch! Work on your antennas whenever you need, when you want! Hazer 2, 3, 4, 5 & 6 wrap around the tower and work best on towers up to 50 feet. Hazer 7 & 22 incorporates its own separate track. See price list for additional accessories (lighting rods, thrust bearing, masts). Never climb your tower again. Let the Hazer do the climbing for you!

MARTIN TOWER PACKAGES COMPLETE WITH: 10' sections, footing assembly, hinge base for easy walk-up installation, Hazer (w/cable, winch, etc.), Kevlar Cable guy kit, turnbuckles, earthscrew anchors, grounding kit, stainless steel hardware, and ***FREE*** 48 state motor freight shipping!



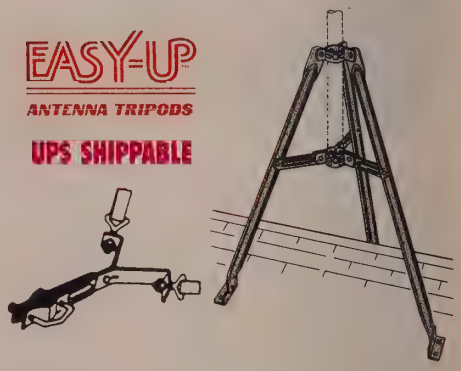
Complete Martin Tower & Hazer Packages	
M-1330A	30' x 13" Aluminum tower package w/Hazer 5
M-1340A	40' x 13" Aluminum tower package w/Hazer 5
M-1350A	50' x 13" Aluminum tower package w/Hazer 6
M-1850A	50' x 18" Aluminum tower package w/Hazer 6
M-1860A	60' x 18" Aluminum tower package w/Hazer 7
M-1870A	70' x 18" Aluminum tower package w/Hazer 7

HAZERS for Rohn 25G & 45G/55G			
MODEL	Max. Ant. Load	Wind Ability	Material
H-2	175 lbs.	12 Sq. Ft.	Heavy Aluminum
H-3	150 lbs.	8 Sq. Ft.	Aluminum
H-4	200 lbs.	16 Sq. Ft.	Galvanized Steel
VH8-60	Hazer for 60' Rohn 45, 22 sq. feet @ 87 mph		
VH9-70	Hazer for 70' Rohn 55, 18 sq. feet @ 87 mph		
TB-25	Preminum Thrust Bearing for Hazer mounting plate		

EASY-UP

ANTENNA TRIPODS

UPS SHIPPABLE



The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1¼" tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1¾". Fast, one-man installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

EZ 48-3ABX *(right)* 3 ft. high, 8.5 lbs **$24.95**

EZ 48-5ABX *(right)* 5 ft. high, 12 lbs **$34.95**

EZ 516 5' 16 ga. steel mast **(Pick-up only)** .. **$7.95**

EZ 2924 **Heavy-duty Double Strap Chimney Mount** *(left)* Mount includes two "Y" type mounts and 24' of galvanized strap **$12.95**

GLEN MARTIN ENGINEERING

See AES price list for a complete guide to GME Products and Prices!

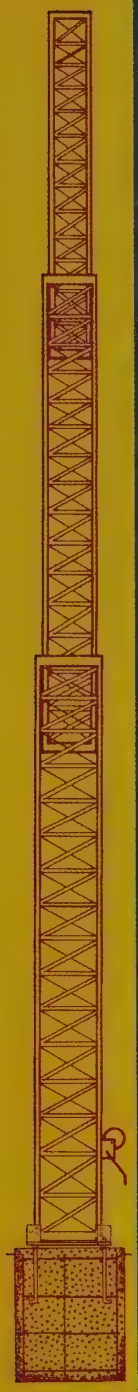
Request product information online at ***http://www.glenmartin.com***

MasterCard VISA DISCOVER NOVUS American Express Cards

We accept I.M.P.A.C.® Government Credit Cards

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Check out our full line of accessories including: **Tower Motor Drives • 5 ft. to 20 ft. Antenna Masts • 20 ft. Chromolly Masts • Thrust Bearings • Mast Raising Fixtures • Rotating bases • Coax support arms • Limit Switch Packages**



MA SERIES CRANK-UP TUBULAR TOWERS

Will handle 10 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
MA-40	40 ft.	21' 6"	2	242	3" sq.	4½"	12"x 12"x 12"	$ 679.95
MA-550	55 ft.	22' 1"	3	435	3" sq.	6"	18"x 18"x 18"'	1069.95
MA-550MDP*	55 ft.	22'1 "	3	620	3" sq.	6"	3'x 3'x 5'	2932.95
MA-770	70 ft.	22'1 0"	4	645	3" sq.	8"	3'x 3'x 6'	2529.95
MA-770MDP*	70 ft.	22' 10"	4	880	3" sq.	8"	3'x 3'x 5½'	3999.95
MA-850MDP*	85 ft.	23' 6"	5	1128	3" sq.	10"	4'x 4'x 6'	5391.95

*Standard bases and eave mounts included with all towers (except MA-770, 770-MDP and 850 MDP)
• MDP models complete with heavy-duty motor drive with positive pull down.

FREE STANDING CRANK-UP TOWERS

Will handle 18 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TX-438	38 ft.	21' 6"	2	355	12½"	15"	3'x 3'x 5'	$1142.95
TX-455	55 ft.	21' 6"	3	670	12½"	18"	3'x 3'x 6'	1399.95
TX-472	72 ft.	22' 8"	4	1040	12½"	21⅝"	4'x 4'x 7'	2832.95
TX-472MDP*	72 ft.	22' 8"	4	1210	12½"	21⅝"	4'x 4'x 7'	3899.95
TX-489MDPL*	89 ft.	23' 4"	5	1800	12½"	25⅝"	4'x 4'x 8⅛'	7390.95

*TX-472MDP includes heavy duty motor drive with positive pull down. *TX-489MDPL comes with heavy duty motor drive with dual level wind and positive pull down. MDPL models include fully operational limit switch packages.

FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

Will handle 30 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
HDX-538	38 ft	21'6"	2	600	15"	18"	3'x 3'x 6'	$1477.95
HDX-555	55 ft	22'	3	870	15"	21⅝"	4'x 4'x 6'	2099.95
HDX-572MDPL*	72 ft.	22'8'	4	1600	15"	25⅝"	4'x 4'x 8⅛'	6775.95
HDX-589MDPL*	89 ft.	23'8"	5	2440	15"	30⅝ "	5'x 5'x 8 ½'	8869.95
HDX-689MDPL*	89 ft.	23'8"	5	3450	18"	37⅛"	5'x 5'x 9½'	17,135.95
HDX-5106MDPL*	106 ft.	24'8"	6	3700	15"	37⅛"	5'x 5'x 9½'	18,647.95

*Includes heavy-duty motor drives with dual level wind and positive pull down. MDPL models include fully operational limit switch packages. *HDX-689MDPL rated 60 sq. ft. of antenna at 50 mph winds. HDX-5106MDPL rated at 35 sq. ft. of antenna at 50 mph winds

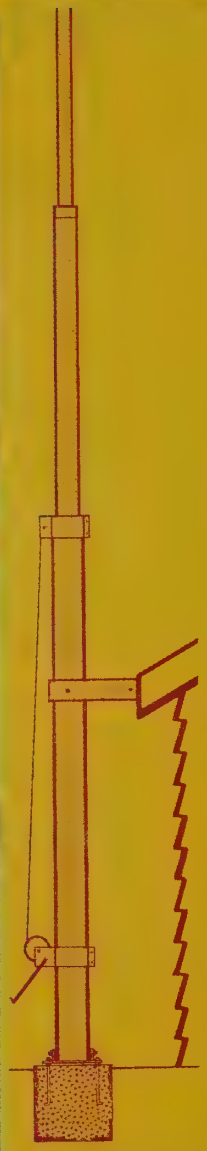
FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

The SS will handle 18 sq. ft. and HD, 24 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TMM-433SS*	33 ft.	11'4"	4	315	10"	18"	3'x 3'x 4'	$1219.95
TMM-433HD	33 ft.	11'4"	4	400	12½"	20⅞"	3'x 3'x 5'	1477.95
TMM-541SS	41 ft.	12'	5	430	10'	20⅞"	3'x 3'x 4½"	1599.95

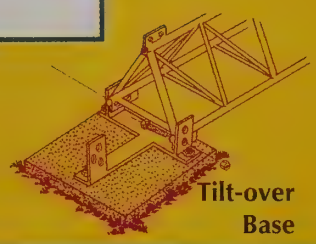
* Rotators must be top mounted on SS models. Yaesu G800S/SDX will fit in and nest.

*** Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-100 or the RMC-1000.



SEE PRICE GUIDE FOR COMPLETE LIST OF ACCESSORIES

WRITE OR CALL FOR A COMPLETE US TOWER CATALOG – FREE!

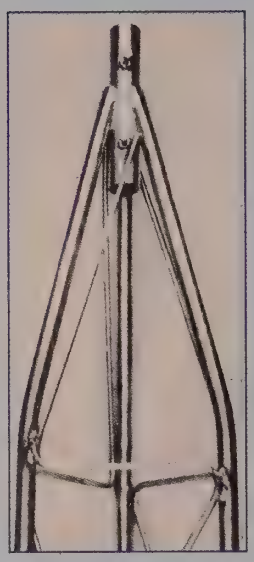


Tilt-over Base

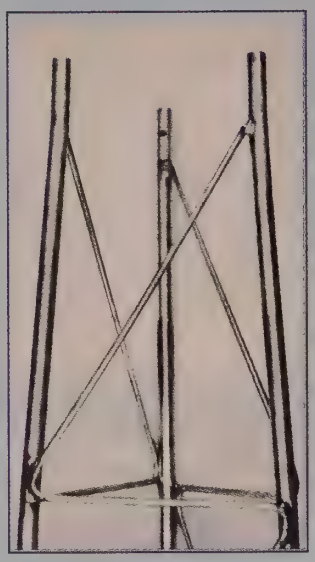
UNIVERSAL TOWERS

FREESTANDING

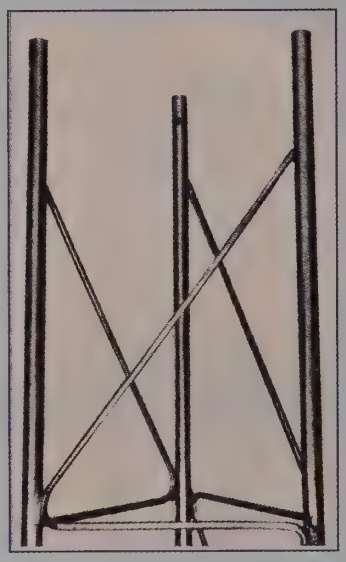
LIGHTWEIGHT • RUST FREE • EASY TO ASSEMBLE • RUGGED STRENGTH
for AMATEUR RADIO • TV • FM • INDUSTRIAL • FIRE • POLICE • MARINE



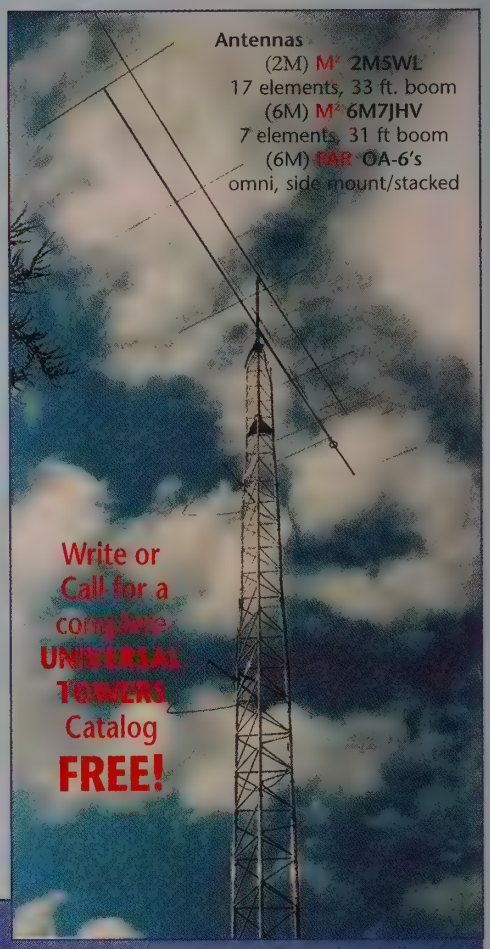
TOP SECTION

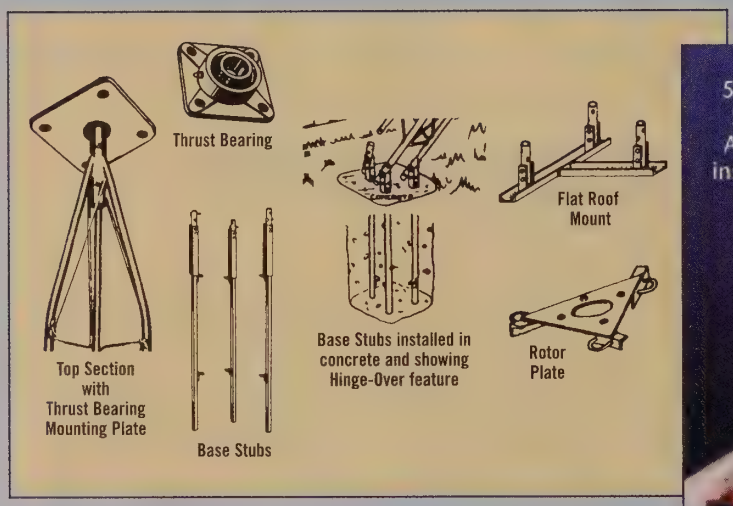


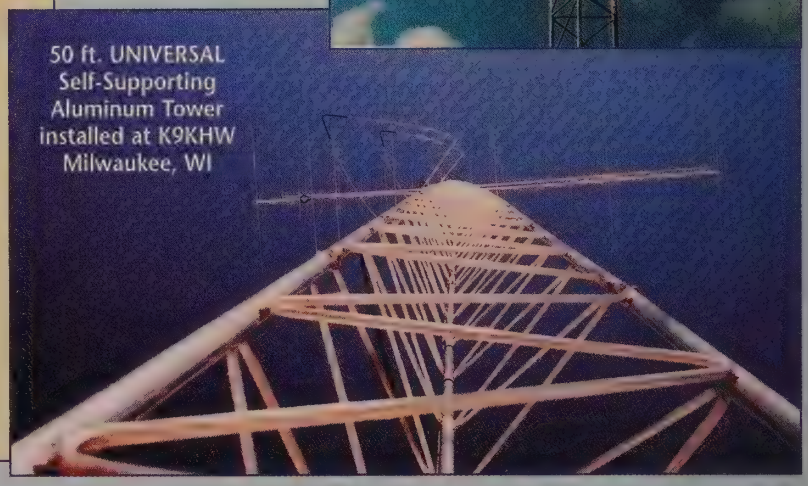
TAPER SECTION



STRAIGHT SECTION







No Guys!
Self-Supporting at the Rated Load

SECTIONS

Universal Aluminum Tower sections are an equilateral triangular welded truss, 10 ft. in length and available 11, 14, 18, 22, 26 or 30 inches wide.

CHOOSING THE PROPER TOWER

(1) Determine the projected surface area of the antenna that you intend to mount. This figure is often in the literature that comes with the antenna. Otherwise: standard T.V. antennas are about 2 sq. ft. in area; 6/10 meter beams and large T.V. antennas, 5 sq. ft. ; 20/40 meter beams, 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays, 18 to 26 sq. ft. Also, when using a rotator to add 1 sq. ft. plus 1 sq. ft. for the mast to whatever size antenna you intend to use.

(2) Decide on the tower height that you want. Universal towers are made in 10 foot sections to give you many possible sizes and the ability to add sections later.

(3) Choose the tower model based on height and windload. The model number is merely the wind loading followed by the height. For example, if your antenna calculation resulted in a tower designed for 5 sq. ft. and you wish it to be 50 ft. high, the model you want is a **5-50**.

BEFORE BUYING A TOWER
Consider the advantages of –
ALUMINUM
It's Strong, Lightweight, Rust Free and easy to assemble and erect.
UNIVERSAL offers 10 ft. sections or complete towers ranges from 10 to 100 ft. with a choice of wind load ratings and accessories to meet your specific needs.

See the Price Guide for Configurations and Prices.

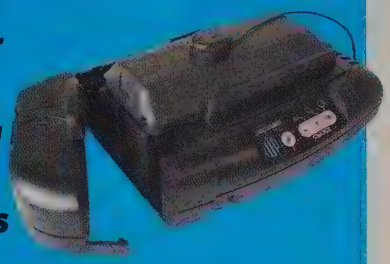
INTELLIGENT Universal Chargers

MAHA

"Your Supplier, Your Partner, Your Friend!"

MH-C777

Universal Charger & Conditioner for versatile charging for nearly all of your battery packs



- **Charge almost all of your NiCD & NiMH** battery packs for your handhelds, camcorders, cellular, and notebook computers.
- Auto 4.8V to 12V detection.
- Negative delta V driven **microprocessor** plus temperature probe.
- For **home and vehicle use.**
- **Car adapter included.**

MH-C888

Universal Drop-in Charger & Conditioner for convenient charging

- Support both NiCD and NiMH battery packs from 4.8V to 12V auto detection.
- **Drop-in design.**
- Informative **digital LCD.**
- **Universal** design using unique and convenient to install cup.
- FLEX negative pulse **extends battery life.**
- 1 & 3 cycle **conditioning.**
- PowerShare feature allow **hassle-free banking.**

MAHA

"Your Supplier, Your Partner, Your Friend!"

BATTERY PACKS

Ultra high capacity, memory free NiMH battery packs available in a wide selection

- Ultra high capacity
- **No memory** effect.
- Maha's legendary **quality.**
- Environmental friendly.
- Maintains full voltage during 80-90% of use.
- Full one-year limited warranty.
- **Great selections.**

MH-PB-39
1050mAh 9.6v For Kenwood TH-G71A / D7

MH-C204F

Rechargeable Consumer AA NiMH battery cells plus intelligent rapid charger & conditioner

- Maha Rechargeable Consumer AA NiMH battery cells have a **ultra high capacity of 1350mAh** 1.24V. Great for handheld radios, FRS, backups, digital cameras, radio controlled toys, etc.
- Compatible **rapid charger and conditioner,** MH-C204F, also available for 2 or 4 batteries.
  - Battery **charged in 1-3 hours.**
  - Two indepedent banks for 2 or 4 AA or AAA batteries.
  - **Automatic detection** plus trickle charge.

Maha Communications, Inc.
Amateur Radio Division
2841-B Saturn St. Brea, CA 92821
Tel: 1-800-376-9992 or 714-985-9132
Fax: 714-714-985-9221

View latest information online.

http://www.maha-comm.com/

RECHARGEABLE NiMH Batteries

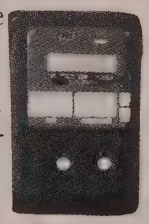
All trademarks belong to their respective owners.

The Pouch

A protective carrying case for H.T.'s made of water-resistant neoprene & nylon. "Bungee type" restraining strap. Belt loop has secure "spear-in" clasp.

Make/Model	Pouch#	Price
ADI		
AT-201/401/600	T-2A	17.95
Above w/hi-pwr batt.	S-1	17.95
PR-52/222	PR	14.95
ALINCO		
DJ-C1T/C4T/C5T	AF-738	12.95
S11/S41/S46	P-5	14.95
G5T	32-5T	14.95
V5T	V-5T	14.95
195T	95T	14.95
280T	VX-3T	17.95
ICOM		
IC-2GXAT	2G	14.95
21/41AT	P-5	14.95
Q7	508	12.95
T2	T-2A	17.95
T8A	510	12.95
T22/T42	P-5	14.95
T81	510	12.95
W32	32-5T	14.95
KENWOOD		
D7A	DTX	17.95
TH-22A/42AT	SS	17.95
TH-G71A	G-71	17.95
TH-79A	S-1(2.7w)	17.95
TH-79A	S-2(5.0w)	17.95
UBX-LF14	P-4V	12.95
VC-HI	S-2	17.95
STANDARD		
C-156A	P-5	14.95
C-508A	508	12.95
C-510A	510	12.95
C-568A	P-5	14.95
YAESU - VERTEX		
VX-1R	1R	12.95
VX-5R	5R	14.95
VXF-10	XF-1	12.95
VR-500	508	12.95

ANALYZER POUCH



The original from The Pouch. Clear window over readouts. Back-pocket for accessories. Shoulder strap included. ANALY POUCH $24.95

ChestPOUCH

Double-ply cordura bib with adjustable, "fits-all" harness. Extra Pouch for battery. Big pocket for accessories on the back. CHESTB/S $29.95

PowerPort by Cutting Edge Ent.

CARRYING CASE

HMP WorldPack Backpack
Transport your rig easily and safely while traveling. Small enough to qualify as carry-on luggage. Designed for small HF radios; specifically the IC-706 Series and the FT-100. Clever radio elevator to adjust radio height. Constructed of laminated heavy duty black nylon with 1/4" foam padding. Separate lower pouch for power supply or rechargeable battery with pass through holes for wiring. Comfortable body contoured mesh straps. Pocket in lid to secure mic and exterior pouch and tie downs for antenna. 17"h x 8"w x 3"d **$57.95**

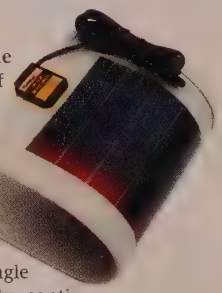
RECHARGEABLE GEL CELL BATTERIES

WorldPack Power Kits Designed to fit perfectly within the WorldPack. 7AH rechargeable gel cell power supply with labeled wire harness, female cigarette lighter plug, DC outlet and charger. Choice of two charger rates. Won't overcharge.

HPP-7A 2-stage, recharges overnight **$63.95**

HP-7AF Fast 2-stage charger, will recharge from a full discharged state in 2.5 hours **$119.95**

SOLAR CELLS



PPSC-32 32W Flexible Roll up Solar Cell Out of reach of conventional power sources? This flexible Roll-up Solar Cell provides 32W of 12V DC operating & recharging power. Will recharge the WorldPack Power Kit in a single afternoon, enabling nearly continous operation of your radio. Approximately 17" wide by 60" in length. Rolls up into a 10" x 17" package for storage. Completely flexible, waterproof and extremely durable. Versatile – can be mounted on a flat, curved or bendable surface **$394.95**

PPSC-5 5.5W Roll-up Solar Cell Same construction as the 32W solar cell, but its size, 10" x 20", is more suitable for lower use applications . **$129.95**

PPSCA Cigarette Plug Adapter Required for use with WorldPack Power Kits **$10.95**

OTHER ACCESSORIES

PPMMDC DC to DC Regulator Increase the flexibility of your 12V power kit. Adjusts output voltage from 1.5V through 12V. Multiple tips in standard sizes **$22.95**

Power Pocket Provides portable power for emergencies, Hamfests, hiking, etc. The 12V @ 2 amp/hour sealed lead-acid rechargeable battery provides talk time, up to 6 times longer than standard packs. It recharges completely in 6 to 8 hours, with the supplied charger; Partial discharges can be recharged to 100% without the usual ni-cad memory effect. Radio conveniently plugs into included female adapter socket. Contained in a compact carrying case with a belt loop and shoulder strap. 3½"w x 1"d x 6½"h, 30 oz **$66.95**

MFJ ENTERPRISES, INC.

CARRYING CASES

18 HamGear™ Tactical Chest Harness *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc **$29.95**

15 HamGear™ Belt Radio Holder *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop **$14.95**

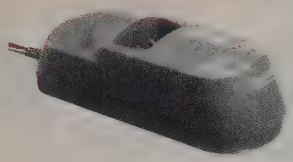
CONTEST KEYER

434 Contest Voice Keyer™ New design, microprocessor controlled transformer-coupled – No RFI, hum or feedback. Automatically call CQ, send your call and do contest exchanges in your own voice! • Store frequently used phrases like *"CQ. Contest this is AASMT"', "You're 59 Qth is Mississippi"*, etc. Record and play back five natural sounding messages totaling 75 seconds – EEPROM storage • Repeat messages continuously and vary the repeat delay from 3-500 seconds • Receive and play back off-the-air signals • Easy to use – plug in an 8 pin microphone cable and plug the MFJ 434 shielded cable into the microphone input • Internal jumpers allow customization to Kenwood, Icom, Yaesu, Alinco and others • Controls to tailor audio level to match your voice • Built-in speaker and audio amplifier • Uses 9V battery, 9-15 VDC or 110 VAC with optional MFJ-1312B. 6½"w x 2½"h x 6½"d **$169.95**

73 Remote Control Head with cable **$29.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 W!
Browse Our Store On-Line at www.aesham.com

KENWOOD



BC-15A Desk Charger Charges Kenwood PB-13, 14, 17 and 18 handheld batteries in 60-100 minutes. (BC-15A looks similar to model pictured) ... Closeout **$19.95**

P-212 2-Outlet Cigarette Plug Adapter Enables two 12V accessories to be used from 1 outlet **$4.95**

P-212B Dual Cigarette Socket Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse **$8.95**

P-12R 2-Contact Cigarette Plug Solder type with twin contact ears, strain relief and grip end.. **$1.95**

SUPERIOR *ACCESSORIES*

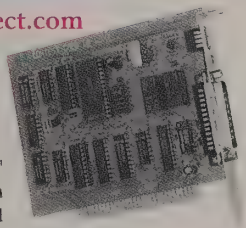
18640 Universal Phone HT/GPS Holder Keeps your phone, HT or GPS at your fingertips in your vehicle. Simply press the red button on side of cradle to open the rubber padded grips. Insert unit, squeeze grips and a ratcheting action adjusts to safely hold units 1¼ to 2½" wide. Press the button again for quick release. It's 4⅞" tall, attaches to optional mount or your mount with screws provided **$14.95**

HOU CPM-310 6" pedestal mount **$14.95**

UM Unified Microsystems

ums@nconnect.com

CONTEST CARD

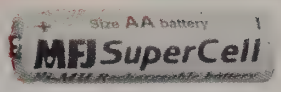


W9XT Contest Card for IBM™ & PC Compatible
A non-volatile 5" x 4½" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs **$149.95**

CCC-4 or **CCC-8 Contest Card Cable Semi-kit** Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (four or eight pin) . **$44.95**

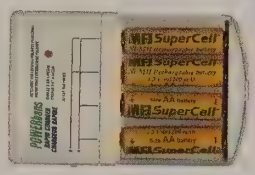
MFJ MFJ ENTERPRISES,

BATTERIES



92AA01 Super Ni-MH "AA" batteries – they have twice the power of standard Ni-Cads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of Ni-Cads. Perfect for use with the MFJ-259B/269 SWR analyzer with its built-in battery charging circuit. The MFJ-631 or MFJ-632 charger *(below)* is recommended **$2.99**

92AA10 Super Ni-MH 10-pack **$24.95**



CHARGERS

PowerHaus™ Rapid and Trickle battery chargers Perfect for charging Ni-MH or Ni-Cd rechargable batteries used in your MFJ-259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800 mA wall adapter is included. Reverse Polarity Protection and a bright red LED indicator that shows charging status. They Do NOT charge alkaline batteries.

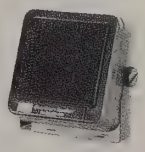
631 Trickle Charger Charges 2 to 4 Ni-MH or Ni-Cd "AA" batteries in 14 hours **$9.95**

632 Rapid Charger Quick charges 2 to 4 "AA" or "AAA" Ni-MH or Ni-Cd rechargeable cells in one hour or less..... **$19.95**

641 RapidBattery™ Universal Chargers Charges Ni-Cd or Ni-MH battery packs. Features both quick and trickle cycles. Unique circuitry with LED indicators determines when the battery is fully charged and prevents damage from overcharging. Universal interchangeable charging slots for fast, simple drop-in charging.

MFJ-641-I2 for Icom BP-131/BP-132 • **MFJ-641-I3** – Icom BP-173/BP-180 • **MFJ-641-Y2** – Yaesu FNB-10/11/ 12/17/27 • **MFJ-641-Y3** – Yaesu FNB-31/FNB-33 • **MFJ-641-Y4** – Yaesu FNB-40/41/49, FNB-V47 • **MFJ-641-K** – Kenwood PB-6/7/8/9/11/30/32/33/34, KNB-5/6/7/5A/6A/7A/9A **$49.95**

SPEAKERS

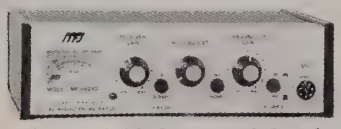


281 ClearTone™ Communications Speaker Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Greatly improves speech intelligibility in the 600-4000Hz range while reduceing undesirable noise, static & hum. 3¾" x 3"x 2¼" **$12.95**

382 Deluxe *ClearTone™* Amplified Speaker An excellent 1 Watt amplified speaker for QRPers, base station HT users or for operating with rigs requiring more volume. A quality 3 inch speaker provides loud, powerful audio. Volume adjusts from barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with the optional MFJ-1312B ($14.95). Connecting cable included. 3½"h x 1¾"w x 4½"d..... **$39.95**

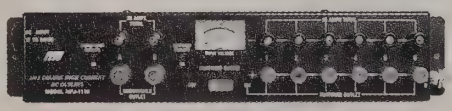
OTHER ACCESSORIES

701 RFI Free Choke Kit Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids) **$14.95**



624D Deluxe Hybrid Phone Patch Interfaces telephone line with your rig for running phone patches. Easy to use. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with MFJ-1312B AC adapter ($14.95). 8"x 2"h x 6".. **$119.95**

931 Artificial Ground Unit Eliminates problems caused by an inadequate ground system when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7½"w x 3½"h x 7"d. *Not for coax fed antennas* **$89.95**



1118 Deluxe Multi DC Outlet Connects to a battery or power supply and provides power distribution to multiple devices. Two pair of heavy-duty 30 amp, 5-way binding posts for transceivers or amplifiers. Individually fused and RF bypassed, rated 35 amps total. Also, 6 pair of RF bypassed 5-way binding posts for accessories, 15 amps total, master fuse. ON/OFF switch, LED power indicator, 0-25V DC voltmeter. Post spacing for dual banana jacks. Includes 6 ft. 8 ga. cable with terminals. 12½"w x 2¾"h x 2½"d . **$74.95**

1116 Similar to 1118 but without 30 amp posts. Provides 8 RF bypassed 5-way binding posts. Voltmeter, ON/OFF switch and fuse **$49.95**

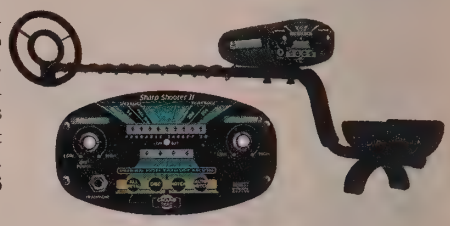
1112 Similar to 1116 but with 5 posts, no voltmeter or ON/OFF switch..... **$34.95**

315 Jaws Gripmatic™ Adjustable foam-padded jaws lock HT or cell phone in place and secure it for the bumpiest rides. Protects from damage. Quick release button lets you take the HT with you. Adjustable FlexNeck™ provides convenient positioning. Suction cups mount Gripmatic to window. Tabs give easy release **$14.95**

Headquarters: 8200 S. Memorial Parkway Huntsville, AL 35801
Phone: 256-882-1344 Fax: 256-880-8077
Mktg & Eng.: 3000 Alpine Road Portola Valley, CA 94028
Phone: 650-233-0429 Fax: 650-233-0439

AES has the Svetlana 572B in stock. The 4CX250B/7203, 4CX400A, 4CX800A and 8874/3CX400A7 are Special Order. See Price Guide.

Fast Tracker™ Dual discriminator system with Ground Trac® allows you to find more valuables and less trash. Tone discrimination gives low tone for nickels, tabs and most trash items. High tone for most coins and silver. 3 lbs..... **$89.95**



Sharp Shooter II™ A digital LCD readout system with No Motion All Metals mode. Combines the ease of use with a visual reference that allows the user to determine what type of metal is being detected. 3-tone reference..... **$249.95**

Quick Draw II™ *(right)* A powerful Zilog Z-86 computer circuit provides more performance than other similarly priced detectors. Detects coins up to 10" deep and larger objects up to 5' deep. Detects 1/4" gold nuggets up to 4" deep. Three levels of iron discrimination – tune out nails but still detect relics..... **$199.95**

Land Star™ *(left)* 3-tone audio discrimination. No Motion All Metals threshold pinpointing and powerful depth capabilities. Notch/auto notch eliminate pull-tabs, but detect nickels and most gold rings. Detects coins up to 12". Manual Ground Balance in All Metals mode adjusts easily and quickly in soil. Has both No Motion and Motion All Metals with iron discrimination..... **$319.95**

GROTHE

SIRENS & HORNS

VS-2 Emergency Vehicle Siren Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs **$89.95**

VS-2LS Siren–Light Combo A one-unit siren and yelp alarm, revolving halogen strobe light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED strobe..... **$299.95**

VS-3 Vehicle P/A and Airhorn w/Rebroadcast A big, powerful airhorn sound with four different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.95**

VS-4 P/A Emergency Vehicle Siren Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3½ x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A..... **$139.95**

Benjamin Michael Industries INC.

RC-1A Impedance Matching Patch Cord Provides an impedance match between an 8Ω speaker output and a 600Ω tape recorder input. Built-in attenuator prevents recorder input overload. Includes cables with 3.5mm audio plugs..... **$19.95**

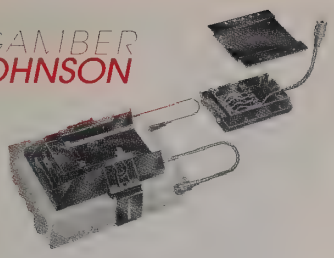
Nitelogger II Auto Tape Recorder Activator Takes audio from 8Ω source and provides 600Ω match and voice activated relay operation for tape recorder. Connects to radio external speaker jack, and recorder remote and microphone inputs. Create simple crossband repeater by connecting up two handheld radios. AC adapter supplied **$69.95**

WE WANT YOUR TRADE-IN!

We're always looking for Clean, Late model SSB or FM gear. Look over the gear in this catalog. Then call Toll Free and tell the salesperson what item you want and what gear you have to trade.

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

GANBER JOHNSON



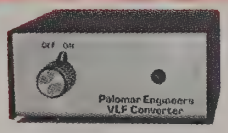
SS-100 Super Slide Radio Mounts Convenient, and avoids theft! Radio slides in and out of mount instantly without having to attach or remove cables. The power, ground, antenna, and speaker leads connect and disconnect automatically when intstalling or removing unit. RF components are designed for a low SWR up to 500MHz. Adjustable bracket adjusts to various case sizes and can be conveniently attached above or below the radio **$79.95**

SS-101 Extra Base Install one in each of your vehicles. Conveniently take your communications gear with you when you change cars..... **$44.95**

Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3½" x 5½" cards. Open at center to receive cards easily. Pack of three (displays 60 cards) **$12.95**

Palomar Engineers



VLF CONVERTERS

Receives/converts 10kHz to 500kHz Very Low Frequency band to 80m. 2 models tune this low range on general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4¼"w x 5"d.

VLF-A Use with Ham Band transceiver **$89.95**

VLF-S Use with general coverage receiver. **$89.95**

Emerson

RP-001 Mini Multi-Tool 12-function, stainless steel with unique rubberized handle. Folds to 2½". • Pliers with versatile serrated jaw • Regular and Phillips Screwdrivers • Knife Blade • Scissors • Nail File and Pick • Bottle Opener Scraper • Wire Stripper • Lanyard Attachment and Key Ring **$6.95**

RP-103 Multi-Tool 12-function, stainless steel with unique rubberized handle. Folds to 4" **$6.95**

ISO-TIP

WAHL Clipper Corporation

7740 Cordless Soldering Iron Provides tip performance up to 50 watts and over 700°. Contains premium nicad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4½ hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips..... **$47.95**

Weller

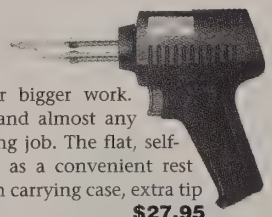
SOLDER EQUIPMENT

W-60P 60W Pencil-Type Soldering Iron *(left)* For most circuit work. Supplied with 1/16" 700°F screw-driver tip. 7½" long, 2½ oz., 6 ft. cord, 120V ... **$63.95**

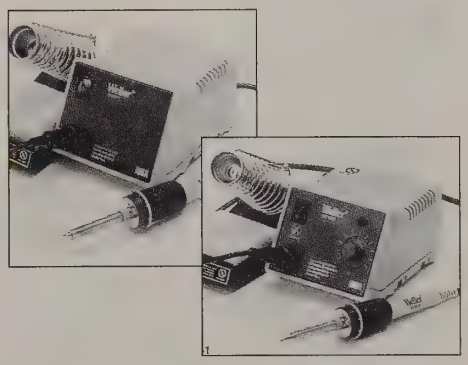
WP-25 25W Pencil-Type Soldering Iron For work on delicate electronic circuits. 750°F tip temperature. 7⅞" long, 1¾ oz., 4 ft. cord, 120V AC..... **$32.95**

WSTA3 Pyropen® Butane Soldering Iron *(right w/case)* Light-weight and completely portable. Operates for up to three hours on a charge of regular cigarette lighter butane. Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.95**

WST2 Pyropen® Jr. *(middle)* A portable mini butane powered soldering iron. Recharges in seconds from a regular cigarette lighter butane container. The soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip **$87.95**



7200PK Multi-purpose Soldering Gun Compact, lightweight, 75 watts for bigger work. Handles connectors and almost any other heavier soldering job. The flat, self-supporting back acts as a convenient rest when not in use. With carrying case, extra tip and solder. 120VAC **$27.95**



WTCPT Controlled Output Soldering Station *(left)* This pencil iron is safe for soldering ICs. Power unit with unitized on-off rocker switch with indicator light. Storage tray holds extra tip and cleaning sponge **$119.95**

EC-1002-1 Compact Soldering Station *(right)* Soldering pencil stand connects to right or left side of unit. Variable temperature, indicator light, self feeding reservoir with cleaning sponge. Tray stores extra temperature sensing tips **$199.95**

Perfect Gift for the Person with Everything!

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000

DATE _____ 19___

THIS CERTIFICATE ENTITLES _____

TO MERCHANDISE VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

AUTHORIZED SIGNATURE

SAMPLE

Gift Certificates Available For The Undecided

We have Gift Certificates and a selection of over 5,000 major items and accessories to choose from. Certificates may be purchased from our Milwaukee store by calling: **1-800-558-0411**

RCA

DSI CDS-1000 Digital Still Camera Works exactly like a regular camera except for one thing...no film! Instead, pictures are stored in the 2MB internal memory that you can download into your PC using the lightning fast USB port. Stores up to 32 high quality pictures at one time, and when you're ready to download, it's simple – everything you need is included: cables and drivers for both PC and Mac, plus MGI Photosuite software so you can retouch, caption and print out perfect enlargements of your pictures. **Features:** • True 640 x 480 VGA resolution • USB output for faster downloads • Built-in flash • Self-timer • Auto exposure and auto white balance • NTSC output • All cable, software and batteries included **$169.95**

DSI RD-2204 LYRA™ Portable Digital Multi-Media Player with Car Kit Plays popular MP3 formatted audio, Real Audio G2 format, and is upgradeable for future alternative audio compression formats. You can create your own MP3 or Real G2 digital music library by converting your existing CD collection. Or, download digital music from the internet to your PC, then to the player through a removable memory card. 64MB storage capacity – plays back 128 minutes of audio at MP3 bit rate of 64Kbps. No moving parts for skipless audio playback. Real Jukebox personal music management software converts CDs to MP3 or Real G2 format • Store files on removable CompactFlash memory cards • Includes stereo headphones, batteries, software, Compact-Flash, CompactFlash Read/Writer, and car DC adapter/car cassette audio output adapter • 4½"h x 2½"w x ⅞"d **$249.95**

DIRECTV®

DSI DS-2122 DIRECTV System Digital technology at the center of your home entertainment system. Digital picture and digital audio performance capability. Convenient features to simplify and enhance you viewing experience. • Accelerated 32-bit processor • NEW 7-line program guide • Interactive channel banner feature: Guardian™, AlphaSort™, Scout™ • Master Touch® universal IR remote • Satellite dish antenna: Only 18" wide, Single output LNB, Optional dual output LNB • OVER 210 available digital-quality channels! • Low cost programming packages • More movies, sports and pay-per-view than cable or any other satellite company! • Easy installation and operation with comprehensive instruction manuals • Includes dish, LNB, receiver and TV remote control **$99.95**

See Price Guide under RCA for variations on this system.

Programming information: 1-800-DIRECTV (347-3288)

PHILIPS

DSI HDR-112 Personal TV Receiver connects to your TV and a phone line which allows connecting to the TiVo™ Personal TV Service™ ($9.95/month or $199.00 lifetime subscription). Once connected and set up, it provides a complete programming source. It's compatible with any satellite, cable or antenna system. The unit features 14-hours of recording time without videotape – it's all Digital.

Control of your viewing. Conveniently pause live TV to take care of interruptions without missing any of your favorite show. The video will start playing behind "real time."

The digital difference. Don't waste time searching through video tapes to find your programs. The digital technology of TiVo™ eliminates the need to fast forward or rewind; you can skip directly to where you want to be.

Control your TV. Disagree with the referee? – you make the call. Create your own instant replays and watch in slow motion, even with live TV.

Your TV favorites. By keeping track of the types of programs you like, TiVo™ searches for and finds new shows that suit your taste.

This unit, accompanied by the TiVo Personal TV Service, has so many features it is impossible to adequately describe them here. For more information go to TiVo's web site at **www.tivo.com.** You'll can get the latest information including software upgrades, viewer guides and tips on usage **$399.95**

less $100 rebate from manufacturer, expires 4/30/00

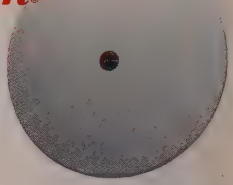
TV GUARDIAN Foul Language Filter A small computer that easily connects between your television and VCR. It continually monitors the closed-captioning embedded in the video signal and references each word against an internal directory of over 100 offensive words and phrases. If a word in the directory is detected, the audio is muted. It also removes the offensive word from the closed-captioning and replaces it with a profanity-free version.

Three filter settings: Off, Tolerant Mode and Strict Mode. Three closed-caption options: Off, Display Text During Mute Only and Full-Closed Captioning. All settings and cable connections are capable of being secured under lock and key **$99.95**

TV ALLOWANCE

MIN 100 Television Time Manager Now limit the amount of time children watch television and play video games. Use the TV Allowance™ to set weekly allowable time for TV or video games for each child. Simply plug the TV power cord into the locking compartment, lock the compartment and plug it in. You decide on the amount of time to be allowed for viewing each week and using a master code, program the unit. Each child (up to 4 children) receives a 4-digit code which is used to access the TV. As each child uses their own code to view a program, their particular account is debited for each minute of viewed time. When the time in the account is used up, the TV shuts off and will not turn on for that child's code until the following week when the account automatically rolls over and gives your child the next allowance. Other features include: **BLOCK** ability that can be used to block out certain time periods. **LOOK** button to check time remaining on each account. **SAVE** function to accumulate allowance from week to week. **MASTER CODE** for parent, babysitter or special viewing. The TV Allowance does not interfere with the operation of VCR, cable or remotes - and kids can't cheat! **$99.95**

Emerson

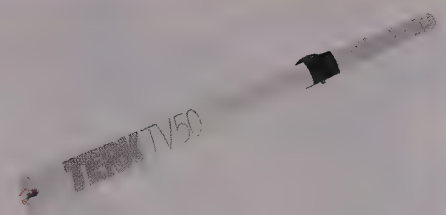


EAN-3400 HDTV Digital-Ready Amplified Omni-Directional Antenna Perfect for installation on DSS satellite mounting bracket for reception of VHF/UHF channels • 360° signal reception, super low-noise design • Integrated high-gain amplifier (25dB) with variable gain control, 75Ω coaxial system • Paintable, UV-protected, 20½ dia. x 8¼ x 1¼ inches • Includes: AC adapter, DSS mounting brackets and hardware..... **Closeout $49.95**

EVO-6500 900MHz Wireless Portable Video Observation System with 5" Monitor Set includes one 900MHz camera/transmitter and one 5" black-and-white monitor/receiver. Closed circuit monitoring systems lets you keep an eye on your private property, baby's room, or business. It's fully wireless - transmitting audio and video signals up to 300 ft. (150 ft. thru walls, floors, ceilings). The battery or AC operated camera features: wide-angle lens, infrared LED's for operation in 0 lux environments, two selectable channels (allowing use of multiple cameras), A/B channel selector, built-in microphone, tripod and wall mount. Camera: 2" x 3¼" x 5½"/ Monitor: 6" x 8¼" x 6¼" **$169.95**

EVO-6550 Second camera **$99.95**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com



Clip-On TV Antennas TERK's amplified clip-on antennas attach in minutes to any 18" satellite dish and complement it by adding reception of all local VHF/UHF channels. Both models cover 54 to 806MHz and contain an internal 10dB amplifier that minimizes signal loss so signals may be distributed to multiple television sets. Power is supplied by your DSS receiver, thru the cable. 10.25"h x 21.25"w x 3.5"d. Durable powder-coated element and weather-proof amp housing.

TV-41 *(left)* is for Single-LNB dishes. It has a diplexer that combines DSS and VHF/UHF signals onto a single coaxial cable. A second, separate diplexer splits satellite and local signals so users can switch between satellite channels and off-air local channels by pressing the antenna button on the DSS receiver's remote controller..... **$59.95**

TV-42 *(left)* is for Dual-LNB dishes. It has two built-in diplexers that provide more than one TV set with DSS signals from the dish and VHF/UHF television signals from the antenna..... **$79.95**

AF-9330 AM-FM Tower Antenna *(right)* Built-in amp with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from the broadcast transmitter **$24.95**

AF-9925 Powered Stereo Antenna AM-FM(pi) Gamma Loop® FM circuitry improves FM receiver performance by receiving FM frequencies only...no noise! Receives more Local and Distant stations while eliminating multipath interference and distortion. Outstanding AM reception too! **FM section:** Operating Band: 88 – 108MHz • Amplifier Gain Range: Adjustable, -20 to +42dB, 3dB N.F. • Pickup Pattern: Omnidirectional • Impedance: 75Ω adaptable to 300Ω input with matching transformer included **AM section:** Frequency Range: 500-1700kHz • Gain: +15 dB, 1.5dB N.F. • Output: Twin-lead independent circuitry• Impedance: 75Ω adaptable to 300Ω input with matching transformer included..... **$49.95**

TV-50 Amplified Outdoor/Indoor TV Antenna Horizontally-polarized with single element VHF and UHF dipoles for multi-directional TV and FM reception from 54-806MHz. A built-in 11db amplifier can be switched in or out as needed for best performance. The amp is powered from a wall wart terminating in a box containing an on/off switch, connectors & a cable that goes to your TV. The TV-50 is 76"l x 2½"w x 1¼"d and mounts almost anywhere in or outdoors. Includes a 30' cable, 20' cable, 6' cable, (2) 3' cables, combiner/diplexer, splitter/diplexer, coaxial barrel connector and rubber insulators. The diplexers let you run TV signals from your satellite dish and TV50 into your home on the same cable. Install within 55 miles of nearest TV broadcast tower..... **$129.95**

TV-MAST Outside mast mount kit..... **$19.95**

AM-1000 External AM Antenna A passive, fully adjustable 530-1600kHz AM broadcast antenna that provides improved reception over built-in loops. It is used unattached, next to the radio. Adjustment is accomplished by positioning the unit for best reception, then rotating the tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For optimum performance, hook it up directly to an external AM antenna input, if available... **$49.95**

LF-20 The Leapfrog Wavemaster 20 System transmits picture and sound from your main TV to anywhere in your home. Eliminates the need for expensive and difficult-to-install in-wall wiring. It operates on 2.4GHz for reliable in-home reception up to 100 feet away. It features both standard RF connectors and coaxial (RCA) jacks, for connection to any type of TV set, new or old, as well as any audio or audio/video component. The clear choice for wireless audio/video transmission **$99.95**

WINEGARD®
Clearly the World's Best®

PROSTAR® 1000 VHF/UHF/FM Antennas Features die-cut impedance correlator that allows close spacing of antenna elements. Manufactured from high tensile aluminum for a strong, compact antenna that will better withstand strong winds and ice loading. Aluminum is protected with high-quality polymer finish.

PR-7010 Metropolitan *(bottom)* 22 active elements (9 VHF, 13 UHF) • 66.5" boom **$39.95**

PR-7032 Far Suburban *(middle)* 33 active elements (13 VHF, 20 UHF) • 103.25" boom **$64.95**

PR-7042 Fringe *(top)* 43 active elements (17 VHF, 26 UHF) • 149.75" boom **$99.95**

SM-2200 Scanner Antenna Vertically polarized, omni-directional pattern. Pass band covers LO, HI and UHF public service bands, including Marine and Aircraft. Coated with a high quality polymer to prevent surface oxidation in any weather. Mounts be-low TV antenna or on separate mast. Includes 50' of 75Ω coaxial cable with F-connectors attached..... **$45.95**

(shown w/DS-2000 Universal Mount)

GS-2000 SENSAR® II Amplified Antenna This 68 channel bi-directional antenna provides excellent reception in metropolitan areas 10 to 55 miles away from TV transmitters. Features built-in modular amp with VHF gain of 15.5dB and 19.5dB UHF gain, average, and a -15dB FM trap. Includes 117V AC power supply, hardware and an easy-to-install mast clamp assembly. 46.25"l, 10 lbs..... **$79.95**

WE WANT YOUR TRADE-IN!

We're always looking for Clean, Late model SSB or FM gear. Look over the gear in this catalog. Then call Toll Free and tell the salesperson what item you want and what gear you have to trade.

Once Again

THE ASSOCIATES®

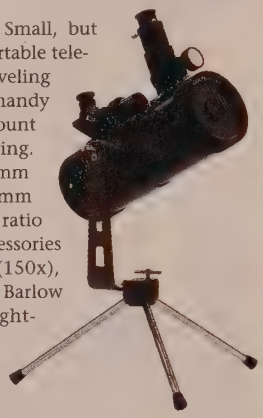
AES is bringing you instant approval on a revolving credit basis. Apply in person only.

Benefits:

- Quick Approvals
- No Down Payment or Annual Fee
- Open Line of Credit for Future Purchase
- Makes Budgeting Easier

31052 Firstscope 114 Premium A high quality, economical telescope w/superb optical system housed in a glossy black metal tube. The equatorial mount is quite stable, w/setting circles and slow motion controls on both axes for easy, smooth tracking. Features include • 114mm (4.5") aperture • 900mm focal length • f/8 focal ratio • 6x30 Finderscope • 1¼" Focuser with 0.96" adapter • 20mm Plossl and 10mm SMA eyepieces • Sturdy, adjust. wood tripod with accessory tray • 19 lbs. **$349.95**

11051 G-5 An ultraportable telescope with optics made in the U.S.A. Serious performance, razor sharp images. Single axis motor drive operates on four D-cells and allows automatic tracking of celestial objects. Features: 5" (127mm) aperture • Focal length of 1250mm • Focal ratio of f/10 • 6x30 Finderscope • 25mm (50x) SMA 1¼" eyepiece • 1¼" eyepiece • 1¼" 90° diagonal • Multi-coated Schmidt-Cassegrain optics (U.S.A. made) • Battery operated motor drive • German EQ mount with adjustable height • 24 lbs **$749.95**



31034 Tabletop 76 Small, but powerful, this ultra portable telescope is ideal for traveling and quick set-up. The handy but sturdy table top mount provides steady viewing. Features include: 76mm (3") aperture • 600mm focal length • f/8 focal ratio • Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 15 lbs **$99.95**

31056 C150-HD *(left)* Mounted on a rigid CG-4 equatorial mount. Counterweight, latitude scale, setting circles and slow motion controls on axes are standard. Features include: 150mm (6.0") aperture • Focal length of 1000mm • Focal ratio of f/7 • Standard 1¼" accessories include: 20mm Plossl eyepiece (50x) and Focuser • 6x30 Finderscope • CG-4 EQ mount • Sturdy, adjustable metal tripod with accessory tray • 41 lbs **$499.95**

11015 Celestar 8 *(right)* Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope of large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1¼" accessories include: 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount & wedgpod • 41 lbs **$1099.95**

11031 NexStar 5 Easy to set-up – no need to polar align, just set it on a table top. Using the hand control you can select a catalog, change the slew (motion) rate, get information on an object, or simply tell if an object is visable. The NexStar's database contains over 18,000 objects including all of the popular catalogs. Features include: 5" (127 mm) aperture • Focal length of 50" (1250mm) • Focal ratio of f/10 • 6x30 Finder-scope • 25mm Plossl eyepiece • Camera: 25x • Schmidt-Cassegrain optics • Battery operated motor drive • 11" optical tube length • 17.6 lbs **$1199.95**

21072 Firstscope 80 EQ WA *(left)* A wide angle, rich field telescope with a short tube that easily captures breathtaking, wide views of large deep-sky objects. Sturdy German equatorial mount and tripod. The weight (13 lbs.) and short tube make this a super portable instrument for easy traveling. Features include • 80mm (3.1") aperture • Focal length of 400mm • Focal ratio of f/5 • Fully multi-coated optics • High quality 6x30 Finderscope • Standard 1¼" accessories include: 25mm SMA eyepiece (16x), Focuser & 90° diagonal • Sturdy, adjustable wood tripod with accessory tray..... **$299.95**

31031 Firstscope 76 EQ *(right)* A fine instrument for the beginning observer. It offers many of the advantages of the Newtonian design at 3" aperture. This model uses the German equatorial mount with setting circles and slow motion controls on both the right ascension (R.A.) and declination (DEC.) axes, making it easier to locate and track objects. Features include • 76mm (3") aperture • Focal length of 700mm • Focal ratio of f/9 • Standard 1¼" accessories include: 12.5mm H eyepiece (56x), 8mm H eyepiece (88x), 2x Barlow lens and Focuser eyepiece (16x), Focuser and 90° diagonal • 5x24 Finderscope • Sturdy, adjustable wood tripod with accessory tray • 15 lbs **$159.95**

TELESCOPE LENSES (not for 11031 or 31034)

93213 1¼" 2x economy Barlow lens..... **$24.95**
93507 1¼" 2x deluxe Barlow lens..... **$59.95**
93340 1¼" 10mm ocular Plossl lens **$59.95**
93342 1¼" 17mm ocular Plossl lens **$59.95**
93344 1¼" 26mm ocular Plossl lens **$59.95**

ZEISS MONOCULARS & BINOCULARS

Zeiss Binoculars - World renowned and with a reputation for excellence. Synonymous with lasting quality and have characteristics which should not be taken for granted: carefully selected materials, outstanding optics, precision engineering and life long reliability.

Designed with the most modern techniques, their precisely computed prisms and lenses, minutely adjusted optical elements and the famous anti-refection coating give outstanding high contrast image quality over the entire field of view.

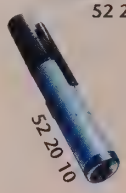
As for durability, the optical components are fitted so as to be fully impact-resistant and are sealed against dust and humidity, The Zeiss multi-layer "T" coating gives impressive brilliance with superb light transmission, high contrast images & excellent low light performance.

All come with straps, case or soft leather pouch and 1 year warranty.

52 20 28

52 20 47

52 40 13



52 20 10

52 30 09

52 56 59/52 40 07

52 40 06

Model	Special Features	Magnification	Prism System	Field of View ft @ 1000yds	Wt. (oz)	Exit Pupil (mm)	Price
52 20 10	MiniQuick, Compact, T* Coated, Monocular	5x10	-	300	0.8	2.0	$89.95
52 20 28	Pocket-sized, Low Weight for hikers, etc.	10x25	Roof	285	7.1	2.5	379.95
52 20 47	Pocket-sized, High Power, Center Focus, T* Coated	10x25	Roof	285	7.1	2.5	459.95
52 30 09	Center Focus, Multi-layer Coated, Rubber Armored	8x30	Roof	360	15.9	3.75	399.95
52 40 06	Center Focus, T* Coated, Rubber Armor, Wide-angle	7x42	Roof	450	28.2	6.0	949.95
52 40 07	High Twilight Performance, Wide angle Eyepieces	7x45	Roof	151/453	42.3	6.4	1199.95
52 40 13	Center Focus, T* Coated, Rubber Armor, Wide-angle	10x40	Roof	330	26.8	4.0	969.95
52 56 59	High daylight/twilight peformance, Wide Angle	8x56	Roof	132/396	51.5	7.0	1399.95

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

BUSHNELL

TELESCOPES

Professional Series of astronomical telescopes are engineered and assembled with unparalleled structural and optical quality. These top-of-the-line models will give the owner many long years of reliable, dependable use and a lifetime of journeys to the stars. This series is highlighted by its professional quality format including • Professional format 1.25" Kellner eyepieces • Aluminum optical tube assembly • High quality glass optic objectives • Full-length, heavy-duty, variable-height aluminum tripods Clock drive ready deluxe metal equatorial mounting systems • Professional format 6x30 finderscopes • 6-point finderscope adjustment systems • All-metal accessory trays • Pro counterweight system • Fine-adjustment controls.

78-0040 90 refractor • Focal length: 1,000 • 25mm eyepiece • Magni.: 40 • Multi-coated oblective lens • Flexible fine tracking cables.... **$439.95**

78-0200 4.5" reflector • Focal length: 900 • 9mm and 25mm eyepieces • Magnifications: 36, 72, 100, 200 • 2x Barlow lens . **$349.95**

Voyager® Series Engineered to exacting standards with exclusive features such as: The first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive Rotary Power turret eyepieces.

78-9440 *(top)* 60mm refractor • Focal length: 700 • 8, 12.5mm eyepieces • Magni.: 56, 88, 168, 263, 280, 440 • Penta mirror, Easy Track® mount • Adjust. hardwood tripod • Erecting lens..... **$89.95**

78-9470 *(bottom)* 60mm refractor • Focal length: 750 • Zoom, 8, 15mm eyepieces • Magnific-ations: 50, 94, 50-150, 250, 470 • Penta mirror • Easy Track® mount • Adjust. tripod..... **$129.95**

78-9675 *(middle)* 4.5" reflector • Focal length: 900 • 4, 12, 20mm eyepieces • Magnifications: 45, 75, 135, 225, 675 • Clock drive equatorial mount • Adjustable aluminum tripod • 6-point finderscope mount • Fine tracking..... **$229.95**

New Voyager® Quality Dobsonian telescopes with all metal tube assemblies and innovative mounts will satisfy anyone just getting started to the advanced amateur astronomer. The new additions include a precision rack and pinion focuser and are engineered with a 1.25" format.

78-6000 6" reflector • Focal length: 1,200mm • 25mm eyepiece • Magnification: 48 • Dobsonian mount • 6 x 30 Finderscope • 6-point finderscope mount..... **$299.95**

78-8000 Looks the same as 78-6000 • 8" reflector • Focal length: 1,200mm • 25mm eyepiece • Magni.: 48 • Dobsonian mount • 6 x 30 Finderscope • 6-point finderscope mount..... **$399.95**

TELESCOPE ACCESSORIES

(See Price Guide to match access. to correct telescope model)

78-0101 1¼", 9mm Kellner eyepiece..... **$29.95**
78-0102 1¼", 25mm Kellner eyepiece..... **$29.95**
78-0103 1¼" format erecting prism..... **$69.95**
78-0105 1¼" format 2x Barlow lens..... **$39.95**
78-0106 Clock drive (DC/battery power) . **$89.95**

Used & Demo
Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

BINOCULARS

Powerview® Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case. (13-0430, 13-1226, 13-1250, 13-2514)

Legacy® binoculars feature old world craftsmanship with new world styling. Designed for those who appreciate modern styling, but still want the unsurpassed performance of traditional optics. Legacy includes multi-coated optics, BAK-4 prisms, soft durable rubber armoring and gold trim. Designed with outdoor enthusiasts' needs in mind, the 8x24 and 10x24 compacts are O-Ring sealed and nitrogen purged for water/fogproof protection. This line offers standard, zoom, high power, extra wide angle, and compact configurations along with sleek ergonomic styling, case, and neck strap. (12-1025)

InstaVision® This line features convenient focus free operation, amber-coated optics, and rubber armoring for durability. The InstaVision action package comes complete with a binocular belt pack case for convenient around-the-waist carrying. They also come equipped with Bushnell's exclusive Sportview® handstrap. (17-7351)

Falcon is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case, & strap. (13-0721, 13-3410)

Model	Special Features	Magni-fication	Prism System	Field of View ft @ 1000yds	Exit Pupil (mm)	Wt. (oz)	Adapt to Tripod	Price
12-1025	Compact, Rubber armored	10x25	Porro	262	2.5	8.3	No	$119.95
13-0430	LiteVision™	4x30	-	650	7.5	7.5	No	19.95
13-0721	Compact	7x21	Porro	340	3	4.7	No	39.95
13-1226	Compact, Folding roof prism, Camo	12x25	Roof	240	2.1	9.7	No	29.95
13-1250	Standard, InstaFocus®	12x50	Porro	265	4.2	27	Yes	59.95
13-2514	Compact, Folding	8x21	Roof	375	2.6	7	No	24.95
13-3410	Standard, InstaFocus®	7x35	Porro	420	5	21	Yes	29.95
17-7351	Wide angle, Handstrap, Belt pack, Focus-free	7x35	Porro	490	5	21	Yes	49.95

CARL WB9STM

DICK KE9QU

GARY L. KA9YTB

JEFF N9EDQ

JIM WB9LSR

MIKE N9LBQ
STORE MANAGER

PAUL S. W9KHO

SKIP KB9PBQ

TOM N9UUJ

MILWAUKEE, WI 414-358-0333 1-800-558-0411

ALEX K8EUR

BEN AA8AH
STORE MANAGER

DAVE WB8BAG

PHILLIP KB8GA

ROD WN8R

CLEVELAND, OH 440-585-7388 1-800-321-3594

KENNY WB7NLB

LUKE KK7BW

SQUEAK AD7K
STORE MANAGER

TERRY

LAS VEGAS, NV 702-647-3114 1-800-634-6227

SERVICIOS INTERNACIONALES

Estamos cerca del Aeropuerto Internacional de Orlando, Florida ee uu

1-407-898-1166

orlando@aesham.com **www.aesham.com**

ABREVIACIONES IMPORTANTES

AMP	Amplificador
ANT	Antena
AT	Acoplador automatico de antena
BATT	Batteria
BKT	Braket de montura
BPR	Guarda choque
CGR	Cargador
CIG	Conector cigarillo
CNTR	Contador
DB	Decibeles
DLX	Lujo
DPLX	Duplexador
EL	Elemento
FREQ	Frequencia
GND	Tierra
GTR	Labio de ventana
HT	Radio de mano
HVY	Pesado
KYR	Llave
MA	Miliamperes
MAG	Magnetico
MAINT	Mantemiento
MIC	Microfono
MT	Montura
MTG	Montura
NMO	Montura Motorola
PROG	Programable
PS	Fuente de poder
PWR	Poder
RCVR	Receptor
REM	Remoto
SENS	Sensitividad
SPKR	Bocina
SPLX	Simplex
SYS	Sistema
TTP	Teclado de botones
VOL	Volumen
W/	Con
WPM	Palabras por minuto
XCVR	Transceptor

Para Contactar:

AES® • 621 Commonwealth Avenue, Orlando, Florida 32803, EUA Tel. 1-407-894-3238; Toll Free: 1-800-327-1917; Fax: 1-407-894-7553; Internacionales: 1-407-898-1166

Forma de pago: El pago que se prefiere es por transferencia de fondos. Nuestra dirección para la transferencia de fondos es: Nations Bank, Fashion Square Branch, Orlando, FL. Routing #063100277, para crédito a Amateur Electronic Supply – Acct. #2836088068.

Método de envío: El envío se hará de acuerdo con sus instrucciones. Si UD. no las indica AES hallará el método más adecuado.

Garantía: La fábrica garantiza sus equipos únicamente dentro de los Estados Unidos. Si su equipo necesitara reparación debe devolverlo a AES con una copia de la garantía y de la factura dentro del plazo autorizado por el fabricante. AES se reserva el derecho de reparar o substituir el equipo que no funcione como diseñado por razones que no resultaron por daño durante el envío. Al recibir el equipo que no funcione o por defectos debe notificarse a AES antes de los 10 días después de recibido. El equipo debe empacarse en la caja original usando los materiales de empaque originales. **El costo del envío, tanto de ida como de vuelta, es por cuenta del cliente.** Los precios y garantías pueden cambiarse sin previo aviso. Algunos productos no pueden ser exportados a ciertos países de acuerdo con las legislaciones locales.

BRUCE WD4HIM

EDDIE KD4RAZ
Hablo español

ERNIE K1HO

GRANT K4IQW
STORE MANAGER

LUIS WP4JSR
Hablo español

RODRIGO TI2WD
Hablo español

ORLANDO, FL 407-894-3238 1-800-327-1917

Miles, K9HMQ • Milwaukee

STEVE, N9SO • Milwaukee

Unlike some dealers, when you purchase a New radio from us our Service Department is able to provide you with outstanding technical support. Our 6 full-time and 4 part-time technicians have more than 70 years of cumulative experience in the ham service field.

Warranty Service

New radios within the manufacturers' warranty period will be repaired at no charge by AES or the manufacturer. Please refer to manufacturers' warranty information when unsure of warranty time periods.

Out-Of-Warranty, Late Model Equipment

Whether the item was purchased from us or not, we will attempt to service it, provided service parts are still available. Before shipping your out-of-warranty items, arrangements must be made by phoning the Milwaukee Service Department at 414-358-4087 – 9:00 AM to 5:30 PM Central Time.

Shipping Equipment for Service

Before sending your item, make sure you contact the nearest AES location and find out the time frame for repairs. If you are concerned about time limitations, this will help you determine where to send the repair and how long your radio will be out.
Always include the following along with the item being shipped:
– a detailed note describing the problem(s)
– your address, day-time phone number, and email address
– a copy of the original invoice, if the item is still under warranty
– the method of payment (see Policies page for a complete list of options)
After packing your item securely in a box with ample packing materials (foam, styrofoam spacers, etc.), mark the shipping label "ATTN: Service." And, always insure your items when shipping.

CALL 414-358-4087 for SERVICE

Labor Rates

Out-Of-Warranty Service $54 per hour
- $72 minimum on HF/VHF Base Stations
- $54 minimum on VHF Mobiles and Handheld Transceivers
- Rates do not include Parts and Return Shipping.

JOHN, WA8PKB • Wickliffe

GIL, K4ISK • Orlando

RAUL, WD2AEQ • Orlando

No Need to Shop Around, We Have It All!

World's Largest Ham Radio Inventory... including accessories

■ Huge Inventory of Major items and all related Accessories ■ Knowledgeable Salespersons ■ Outstanding Mail Order Service ■ Toll Free Lines at all locations ■ E-mail & Web Site ■ Service Department ■ Major Credit Cards ■ Gift Certificates ■ More!

SAME DAY ORDER PROCESSING
When You Need It ... It's There!

Most orders picked and packed for same day shipment!

FLAT RATE SHIPPING via Best Ground Method in the Lower 48 States

AMOUNT OF ORDER	SHIPPING CHARGES
Up to $100.00	$4.95
$100.01 to $500.00	$9.95
$500.01 to $1,499.99	$14.95
$1500.00 & UP	PREPAID

Flat Rate Does Not Apply To Drop Shipments

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

EXCEPTIONS TO RATES ABOVE

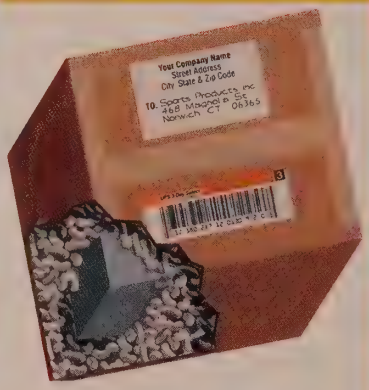
Optional UPS methods (Red, Blue & Orange) and any USPS methods are charged at Regular Rates without any credit for UPS ground rates. COD's are not accepted for these faster methods.

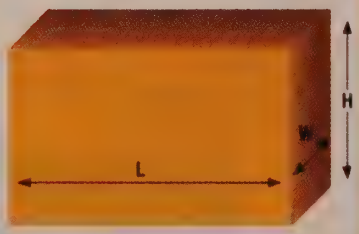
Shipments to APO/FPO go via Priority Mail. Puerto Rico, Alaska and Hawaii can be shipped to via Priority Mail or Blue Label. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

Please see Policies Page for complete information.

NOTE: Tracking numbers for out-bound shipments are gladly given. Call our local number, 414-358-0333, and ask for tracking number service.

Importance of Proper Packing





$$\frac{L \times W \times H}{194} = \text{Dimensional Weight}$$

Packing

When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. In other words, if you put your FT-1000D, TS-940S or AL-1500 in a box with little or no packing beneath it, chances are it will sustain some damage. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 pounds, three inches of foam or crumpled paper should be used instead of polystyrene edge protectors.

Include Information

When you send your well-packed parcel to AES for repair, return or trade-in, be sure to include a letter inside the package. Do not rely on information written or taped on the outside of the carton. This information can be destroyed by moisture or abrasion. In the letter, put your call, name, address, phone and reason for return. You may also want to include your e-mail address and times you can be reached via telephone.

Dim Weight

When calculating the cost of air shipments, whether Fed-Ex, UPS or other carrier, remember that they use dimensional weight. Dim weights are used to insure adequate revenues per cubic foot of cargo plane space. The formula used to calculate dimensional weight is: L x W x H divided by 194. This means a 12" x 13" x 16" box that weighs six pounds will be sent at the twelve pound rate when an air service is used.

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AMATEUR ELECTRONIC SUPPLY® 5710 W. Good Hope Road • Milwaukee, WI 53223
Local: (414) 358-0333 • *Toll Free:* 1-800-558-0411 • *24-hour FAX:* (414) 358-3337 *Internet:* www.aesham.com • *E-Mail:* info@aesham.com

Salesperson's Name _____
Account No. _____ Date _____
Name _____ Call _____
Address _____
City/State _____ Zip _____
E-Mail Address: _____ Fax: _____
Phone No. (Home) ( ) _____ Hours: _____
Phone No. (Work) ( ) _____ Hours: _____

SHIP TO *(If other than at left):*
_____
_____
_____
_____

IF YOU HAVE MOVED since your last order, please show your old address:
_____
_____

QTY.	MANUFACTURER	PART OR MODEL # • DESCRIPTION	PRICE EACH	TOTAL
			TOTAL AMOUNT OF ORDER	$

LINE 1 — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

_____

IMPORTANT! Persons having a Trade-in must check one of the following: (Also, see more important information on next page and on Policies page.)
- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

LINE 2 — Shipping Charges We ship via **best ground method** at *flat-rate* shown on next page, except to APO/FPO made via Priority Mail.
For Faster Service select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❑ UPS Next Day Air (Red) ❑ 2nd Day Air (Blue) ❑ 3-Day Select (Orange) ❑ Federal Express ❑ RPS ❑ Express Mail ❑ Priority Mail

+ *Shipping Charges are taxable in Wisconsin, Florida & Nevada*

LINE 3 — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6%, ❑ NV- 7.25%, ❑ OH-5.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance* +

LINE 4 — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any) -

CREDIT CARD INFORMATION

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

LINE 5 — Balance $

LINE 6 — Due AES from previous order (if any) +

TOTAL AMOUNT DUE

Choose payment method from below: (Fill in information at right, if applicable)
❑ Bank transfer ❑ Certified check ❑ Personal check ❑ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.
❑ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❑ COD $6.50 fee per package. *Money Order or Certified Check Only.*
MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's

$

AMOUNT ENCLOSED -

BALANCE DUE (IF ANY) $

BANK TRANSFER INFO

MILWAUKEE, WI M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Further credit to M&I Northern Bank,credit account #8837510 in the name of Amateur Electronic Supply. **WICKLIFFE, OH** Key Bank, Wickliffe Branch, 29310 Euclid Avenue; Wickliffe, OH 44092. Routing #041001039 for credit to: Amateur Electronic Supply Account #350341000239. **ORLANDO, FL** Nations Bank, Fashion Square Branch, Orlando, FL Routing #063100277 for credit to: Amateur Electronic Supply Account #2836088068. **LAS VEGAS, NV** Bank of America, Decatur Meadows Branch. Routing #122400724 for credit to: Amateur Electronic Supply Account #260191226.

Cut along dotted line or make Photocopy

We Invite You to Visit the Nearest AES® Location

ALL STORE HOURS

Monday – Friday
9:00 A.M. - 5:30 P.M.
Saturday
9:00 A.M. - 3:00 P.M.

MILWAUKEE, WISCONSIN

5710 W. Good Hope Road 414-358-0333 • 1-800-558-0411

CLEVELAND, OHIO

28940 Euclid Avenue
440-585-7388 • 1-800-321-3594

LAS VEGAS, NEVADA

1072 N. Rancho Dr.
702-647-3114 • 1-800-634-6227

ORLANDO, FLORIDA

621 Commonwealth Avenue
407-894-3238 • 1-800-327-1917

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

COD ORDERS Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $6.50 COD fee per package applies. Payment by money order or certified check, only.

DAMAGED ITEMS If the customer discovers a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

DEFECTIVE ITEMS Defective items should be returned to Amateur Electronic Supply or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via UPS Ground, prepaid at our expense. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see *"Canadians Note:"* under TRADE-INS.

INTERNET ORDERS The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

PAYMENT Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

We accept U.S Government I.M.P.A.C.® Credit Cards

PRICING We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

REFUNDS Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

RETURNS In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see *"Canadians Note:"* under TRADE-INS.

SHIPPING Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax. Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via UPS Ground Service, only.

Shipping calculations on best ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories. Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at regular rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

TRADE-INS Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material (see pg. 143). Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

Canadians Note: Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

BIDS & PURCHASE ORDERS AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 358-0333 or Fax: 414-358-3337

AMATEUR ELECTRONIC SUPPLY® LLC

5710 W. Good Hope Road Milwaukee, WI 53223 • 414-358-0333 • Fax 414-358-3337 • Service 414-358-4087

BRANCH STORES			STORE HOURS
28940 Euclid Ave Cleveland, OH 44092 440-585-7388 1-800-321-3594 Fax 440-585-1024 cleveland@aesham.com	621 Commonwealth Ave Orlando, FL 32803 407-894-3238 1-800-327-1917 Fax 407-894-7553 orlando@aesham.com	1072 N Rancho Dr Las Vegas, NV 89106 702-647-3114 1-800-634-6227 Fax 702-647-3412 lasvegas@aesham.com	Monday-Friday 9am to 5:30pm Saturday 9am to 3pm Over 43 Years in Amateur Radio

Internet www.aesham.com • E-mail info@aesham.com • Toll Free 1-800-558-0411

ORDER TOLL FREE 1-800-558-0411

6:00 A.M. Pacific to 8:30 P.M. Eastern
Monday – Friday • Saturday to 6:00 P.M.

ALINCO, INC.
438 Amapola Avenue, #130
Torrance, CA 90501
310-618-8616 fax: 310-618-8758
alinco@alinco.com

ALPHA DELTA/OUTBACKER/KENT
P.O. Box 620
Manchester, KY 40962
606-598-2029 fax: 606-598-4413

AMERICAN RADIO RELAY LEAGUE
225 Main St.
Newington, CT 06111
860-594-0200 fax: 860-594-0303
hq@arrl.org

AMERITRON
116 Willow Rd.
Starkville, MS 39759
662-323-8211 fax: 662-323-6551

AOR U.S.A
20655 S. Western Ave. Ste. 112
Torrance, CA 90501
310-787-8615 fax: 310-787-8619

ASTRON CORPORATION
9 Autry
Irvine, CA 92618
714-458-7277 fax: 714-458-0826
www.astroncorp.com

BARKER & WILLIAMSON (B&W)
603 Cidco Road
Cocoa, FL 32926
321-639-1510 fax: 321-639-2545
www.bwantennas.com

BENCHER/ BUTTERNUT
831 N Central Ave.
Wood Dale, IL 60191
630-238-1183 fax: 630-238-1186
bencher@bencher.com

BUSHNELL
9200 Cody
Overland Park, KS 66214
913-752-3400 fax: 913-752-3550

CES WIRELESS TECHNOLOGIES CORP.
925-122 S Semoran Blvd.
Winter Park, FL 32792
407-679-9440 fax: 407-679-8110
sales@cesusa.com

COMET (NCG COMPANY)
1275 N. Grove St,
Anaheim, CA 92806
714-630-4541 fax: 714-630-7024
micks@cometantenna.com

COMMUNICATIONS SPECIALISTS, INC.
426 W. Taft Ave.
Orange, CA 92865
714-998-3021 fax: 714-974-3420
www.com-spec.com

CONNECT SYSTEMS, INC.
2259 Portola Rd.
Ventura, CA 93003
805-642-7184 fax: 805-642-7271
sales@connectsystems.com

CUSHCRAFT CORPORATION
P.O Box 4680
Manchester, NH 03108
603-627-7877 fax: 603-627-1764
techsup@cushcraft.com

DAVIS INSTRUMENTS
3465 Diablo Ave.
Hayward, CA 94545
510-732-9229 fax: 510-732-9188
sales@davisnet.com

DCI DIGITAL COMMUNICATIONS, INC.
29 Hummingbird Bay
White City, SK Canada
1-800-563-5351
fax:306-781-2008
dci@dci.ca

DIAMOND ANTENNA/RF PARTS
435 S. Pacific St.
San Marcos, CA 92069
760-744-0900 fax: 744-1943
rfp@rfparts.com

GAP ANTENNA PRODUCTS, INC.
99 North Willow St.
Fellsmore, FL 32948
561-571-9922 fax: 561-571-9988
gap@gap antenna.com

GARMIN INTERNATIONAL
1200 E. 151st. St.
Olathe, KS 66062
913-397-8200 fax: 800-801-4670

GLEN MARTIN ENGINEERING, INC.
13620 Old Hwy 40
Boonville, MO 65233
660-882-2734 fax: 660-882-7200
info@glenmartin.com

GRUNDIG
3520 Haven Ave. Unit L
Redwood City, CA 94063
650-361-1611 fax: 650-361-1724

HAL COMMUNICATIONS CORP.
P.O. Box 365
Urbana, IL 61801
217-367-7373 fax: 217-367-1701
halcomm@halcomm.com

HEIL SOUND LTD.
5800 N. Illinois
Fairview Heights, IL 62208
618-257-3000 fax: 618-257-3001
info@heilsound.com

HUSTLER
One Newtronics Place
Mineral Wells, TX 76067
940-325-1386 fax: 940-328-1409

INTERNATIONAL ANTENNA CORP.
PO Box 121430
Clermont, FL 34712
407-654-7111 fax: 888-268-4214

ICOM AMERICA, INC.
2380 116th Avenue N.E.
Bellevue, WA 98004
425-454-8155 fax: 425-454-1509
tech@icomamerica.com

KANTRONICS
1202 E. 23rd St.
Lawrence, KS 66046
785-842-7745 (tech) 785-842-4476
fax: 785-842-2031
service@kantronics.com

KENWOOD COMMUNICATIONS
P.O. Box 22745
Long Beach, CA 90801-5745
310-639-5300 fax: 310-537-8235
www.kenwood.net

KENWOOD SERVICE CENTER-WEST
13030 Alondra Blvd. #104
Cerritos, CA 90703-2257
562-483-8740 fax:562-483-8749

KENWOOD SERVICE CENTER-EAST
829 Lynnhaven Parkway, #130
Virginia Beach, VA 23452
757-340-1702 fax: 757-340-6809

L.L. GRACE (Kansas City Tracker)
P.O. Box 1345
Voorhees, NJ 08043
856-751-1018 fax: 856-751-9705
www.llgrace.com

LARSEN ELECTRONICS, INC.
P.O. Box 1799
Vancouver, WA 98668-1799
360-944-7551
fax:1-800-525-6749
larsen@larsenantennas.com

M2 ANTENNAS
7560 N. Del Mar Ave.
Fresno, CA 93711
559-432-8873 fax: 559-432-3059

MAGELLAN SYSTEMS CORP.
960 Overland Ct.
San Dimas, CA 91773
909-394-5000
fax: Cust/Service 909-394-7050

MAHA COMMUNICATIONS, INC.
2841-B Saturn St.
Brea, CA 92821
1-800-376-9992
fax: 714-985-9221
sales@maha-comm.com

MFJ ENTERPRISES
300 Industrial Park Rd.
Starkville, MS 39759
601-323-5869 fax: 601-323-6551
www.mfjenterprises.com

MIRAGE COMMUNICATIONS
921 Hwy 25 S
Starkville, MS 39759
601-323-8287 fax: 601-323-6551

OREGON SCIENTIFIC
19861 SW 95th Pl.
Tualatin, OR 97062-7526
503-639-8883 fax: 503-684-8883

PacComm PACKET RADIO SYSTEMS
4413 N. Hesperides St.
Tampa, FL 33614-7618
813-874-2980 fax: 813-872-8696
BBS: 813-874-3078

PALOMAR ENGINEERS
P.O. Box 462222
Escondido, CA 92046
760-747-3343 fax:760-747-3346
www.Palomar-Engineers.com

PAR ELECTRONICS, INC.
6869 Bayshore Dr.
Lantana, FL 33462
561-586-8278 fax: 561-582-1234
par@parelectronics.com

PIPO COMMUNICATIONS
1516 Cassil Pl.
Hollywood, CA 90028-7106
332-466-5444 fax:332-466-1520
pipo@compuserve.com

PREMIER COMMUNICATIONS (ADI)
480 Apollo Ste. E
Brea, CA 92821
714-257-0300 fax: 714-257-0600
premier@adi-radio.com

RF APPLICATIONS, INC.
7345 Production Drive
Mentor, OH 44060
1-800-423-7252
fax: 440-974-9506
sales@rfapps.com

R.L. DRAKE COMPANY
230 Industrial Dr.
Franklin, OH 45005
513-746-6990 fax: 513-743-4683
sales@rldrake.com

SGC, INC.
13737 S.E. 26 St.
Bellevue, WA 98005
425-746-6310 fax: 425-746-6384
www.sgcworld.com

SMILEY ANTENNA CO INC.
408 La Cresta Heights Rd.
El Cajon, CA 92021
619-579-8916 fax:619-579-8598
bill@htantennas.com

SONY
1200 N. Arlington
Itasca, Il 60143
630-773-6000 fax: 630-773-7695

TIMES MICROWAVE SYSTEMS
258 Hall Ave
Wallingford, CT 06492
203-949-8400 fax: 203-949-8423
www.timesmicrowave.com

UNIDEN
4700 Amon Carter Blvd
Fort Worth, TX 76155
817-858-3300 fax: 817-858-3333

UNIFIED MICROSYSTEMS
3310 Bonnie Lane
Slinger, WI 53086
414-644-9036 fax: 414-644-9036
ums@nconnect.com

UNIVERSAL MFG
43900 Groesbeck Hwy.
Clinton Township, MI 48036
810-463-2560 fax: 810-463-2964

UNR-ROHN
P.O. Box 2000
Peoria, IL 61656
309-697-4400 fax: 765-659-5351

US TOWER CORPORATION
1220 Marcin St.
Visalia, CA 93291
209-733-2438 fax: 209-733-7194
sales@ustower.com
www.USTower.com

VECTRONICS
300 Industrial Park Rd.
Starkville, MS 39759
662-323-5800 fax: 662-323-3158

YAESU U.S.A.
17210 Edwards Road
Cerritos, CA 90703
562-404-2700
fax: 562-404-1210 (sales)
fax: 562-404-4828 (tech support)
yaesu@worldnet.att.net

LINKS TO VARIOUS MANUFACTURERS' SITES AT www.aesham.com • AES SERVICE 414-358-4087

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

HF ENTHUSIASM

Yaesu, Choice of the World's top DX'ers

MICRO MOBILE FT-100

Over 40 years of experience in HF transceiver design has firmly established Yaesu as the choice of the world's top DX'ers. The knowledge that produced unequaled RF technology and design that is found in the State of the Art FT-1000MP can also be found in the miniature FT-100. The FT-100 while small in size 6.3" × 2.1" × 8.1"(160 W × 54 H × 205 D mm :w/o knob) is large in features and performance. This is accomplished by using the most advanced manufacturing techniques and component mounting technology. High Dynamic range RF front-end technology and Advanced Digital technology such as DSP sets a new standard of receiver performance for miniature HF transceivers. The single piece die cast frame, dual cooling fan system and revolutionary RF high power design technique keeps the FT-100 running cool and smooth in the most adverse operating environments. (TX Power output=100W HF, 50W VHF/20W UHF) The TX Equalizer offers crisp, clear and clean TX audio reproduction that until now was only found in top of the line HF base stations. The optional ATAS-100 (active tuning antenna system) ushers in a new age of mobile and field day operation (from HF to UHF frequencies). Add the optional ATBK-100 base kit (Good for limited space, simple setup.) and you've got a base station that ranks among the best in the world.

Features

- Frequency coverage:
  RX : 100 kHz-961 MHz (cellular blocked)
  TX : 160-6 m/144-148 MHz/430-450 MHz
- Power output : 100 W (160-6 m), 50 W (144 MHz), 20 W (430 MHz)
- DSP Bandpass Filter, Notch Filter, Noise Reduction, and Equalizer
- IF Noise Blanker
- SSB, CW, AM, FM, AFSK, Packet (1200/9600 bps) operation
- Detachable Front Panel
- Two Antenna Jacks (HF/50 and 144/430)
- IF Shift
- VOX
- Dual VFOs
- Available IF bandwidths of 6 kHz, 2.4 kHz, 500 Hz, and 300 Hz (6 kHz, 500 Hz, 300 Hz filters optional)
- Built-in Electronic Memory Keyer
- Speech Processor
- Built-in CTCSS and DCS for FM operation
- Automatic Repeater Shift and Auto-Range Transponder System
- Smart Search™ Automatic Memory Channel Loading System
- 300 memory Channels
- Quick Memory Bank (QMB)
- Bright LCD with multi-function display
- Optional FC-20 External Antenna Tuner
- Compatible with ATAS-100 Active-Tuning Antenna System. Add the optional ATBK-100 base kit

MICRO MOBILE SERIES

FT-100

Ultra-Compact HF/VHF/UHF Transceiver

YAESU

For the latest news, hottest products:
Visit us on the Internet! http://www.yaesu.com

©1999 Yaesu USA, 17210 Edwards Road, Cerritos, CA 90703 (562) 404-2700

Specifications subject to change without notice. Specifications guaranteed only within Amateur bands.Some accessories and/or options are standard in certain areas. Check with your local Yaesu dealer for specific details

ORDER TOLL FREE
1-800-558-0411

6:00 A.M. Pacific to 8:30 P.M. Eastern
Monday – Friday • Saturday to 6:00 P.M.

- ✔ *Over 43 Years in Amateur Radio*
- ✔ *Knowledgeable Sales/Service Staff*
- ✔ *Complete Inventories*
- ✔ *Competitive Pricing*
- ✔ *Fast & Low Cost Shipping*
- ✔ *Top Trades, Quality Used Gear*
- ✔ *Service Department*

AMATEUR ELECTRONIC SUPPLY®
5710 W. Good Hope Road
Milwaukee, WI 53223

CHANGE SERVICE REQUESTED

PRSRT STD
U.S POSTAGE
PAID
Permit #181
Pewaukee, WI

SPR 00

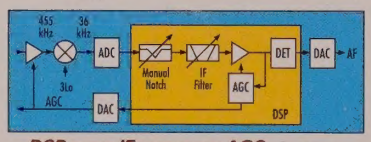
**********AUTO**5-DIGIT 93422
0253304 W6FM
RON D PATTERSON 002
17355 WALNUT AVE 120
ATASCADERO CA 93422-6624

ICOM IC-756PRO

This is not your father's HF rig. This is all new, 32-bit DSP digital processing.

THE GREATEST THING TO HIT HF SINCE...

This is no simple upgrade of ICOM's classic IC-756. The new IC-756PRO sets a new standard in ham radio design and construction. At the heart of the advances is a 32-bit (not 16-bit) floating point DSP unit that operates at an unrivaled processing speed.



DSP IN THE IF, BEFORE THE AGC. *Dual loop digital AGC eliminates strong signal pumping.*

THE DX ADVANTAGE YOU'VE ALWAYS WANTED

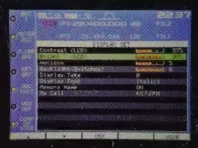
The 144 dB dynamic range of the 32-bit floating point technology blows away the limitations of older 16-bit technology. If your ear had that range, you could still hear a whisper while standing next to a jet engine. With the 'PRO, you may not get the full theoretical performance, but you will get amazingly clear, crisp reception and almost no background noise.

YOU'LL NEVER BUY ANOTHER FILTER

The 'PRO features 41 built-in, front panel selectable levels of DSP filtering. There's no additional filters or high stability crystal oscillators to buy, because none are needed. It's like going from Zero-to-Contesting in seconds flat. Our filters are the world's sharpest–more selective than any crystal or mechanical filters. The selectivity lets you pull out the weak signals like never before.

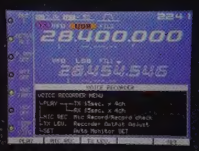
CDs VS VINYL ALBUMS

The 'PRO's audio quality is revolutionary. You've got to hear it to believe it.



Customize the screen's look by changing colors, fonts, brightness, contrast, and more.

Keep tabs on memory channels with an alpha-numeric readout of mode, frequency, filters & more.

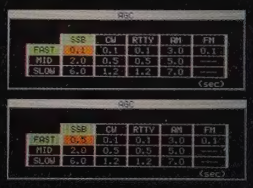


A digital voice recorder has 4 slots for RX and 4 for TX, each 15 seconds long–a contesting bonus!

Copy RTTY DX without firing up your computer. A dual auto peak filter makes it easy.

Visual indicators of filter selection let you tweak the band pass. Choose from 31 steps of 100Hz between 3600–600Hz and 10 steps of 50Hz between 500–50Hz.

If the AGC is too fast or too slow, make it "just right" with a quick settings change. Use different settings for different modes.



EASY TO USE, EASY ON THE EYES. *The IC-756PRO's front panel is well laid out and easy to control. The TFT LCD display is easy to see from wide angles, day or night. This handsome rig will look great in any home or shack.*

Whether it's voice, CW or data, the new IC-756PRO offers the details and performance capable of topping the contest charts. Visit AES today for a test drive. You've got to hear it to believe it.

Are you a PRO?

ICOM®
www.icomamerica.com

©2000 ICOM America. The ICOM logo is a registered trademark of ICOM, Inc. All specifications subject to change without notice or obligation. 756PROAESBC100